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The Autobiography of John Hays Hammond



JOHN HAYS HAMMOND

THE AUTOBIOGRAPHY OF
JOHN HAYS HAMMOND

Illustrated with Photographs

VOLUME

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FARRAR & RINEHART · INCORPORATED

On Murray Hill, New York

To My Wife

1881-1931

Contents Volume One

	PAGE
FOREWORD.....	xi
CHAPTER	
I. HERITAGE OF A CALIFORNIAN.....	3
II. A BOY ON THE FRONTIER.....	17
III. IN PURSUIT OF AN EDUCATION.....	33
IV. TRAINING AN ENGINEER.....	63
V. THE BOTTOM OF THE LADDER.....	74
VI. GOLD	95
VII. OLD MEXICO.....	106
VIII. INSURRECTOS AND INDIANS.....	124
IX. IN FAR PLACES.....	144
X. ALL IN THE DAY'S WORK.....	159
XI. GRASS VALLEY AND THE COEUR D'ALENE.....	176
XII. THE CALL TO AFRICA.....	197
XIII. THE EMPIRE BUILDER.....	217
XIV. THE WINNING OF RHODESIA.....	241
XV. TREKKING THROUGH MATABELELAND.....	261
XVI. DEEP-LEVEL MINING.....	291
XVII. THE REFORM MOVEMENT.....	307
XVIII. THE REVOLT OF THE UITLANDERS.....	329
XIX. THE TRIAL.....	354

List of Illustrations

	FACING PAGE
John Hays Hammond	<i>Frontispiece</i>
Golden Gate, San Francisco, 1855	6
My father, Richard Pindell Hammond	7
My mother, Sarah E. (Hays) Lea Hammond	14
My sister and my brothers, and myself	15
My uncle, Colonel Jack Hays	18
My sister, Mary-Elizabeth: Betty	19
At the bottom of the ladder	26
A Chinese placer miner	27
The steps of "The Cloister"—Yale 1876	50
Yale Crew of '73	51
Arthur Twining Hadley	66
Hawley, Cunningham, and myself at Freiberg	67
My wife, Natalie Harris	70
Myself at Freiberg	71
"Hopeful" Bill	98
At the Bunker Hill mine	99
Hacienda at Minas Nuevas	122
The mine at Minas Nuevas	122
I start out to investigate a mine in Mexico	123
Table Mountain, Cape Town	202
Barney Barnato	203
The market place, Johannesburg	210
Dr. Murray and Jackie in my Cape cart	211
Cecil Rhodes	226

List of Illustrations

	FACING PAGE
Kimberley Diamond Fields.....	227
Lobengula	242
Matabele	243
Voortrekkers	258
Oxcarts crossing a stream.....	259
Rhodes and Jameson at Groote Schuur.....	274
In front of the Zimbabwe ruins.....	275
A South African mine.....	290
Kaffir miners	291
Oom Paul.....	314
Pretoria, the capital of the Transvaal.....	315
Offices of the Consolidated Gold Fields.....	362
Under guard at Johannesburg.....	363

Foreword

*C*alifornia, with its changing history, vital yet romantic, derives its very name from a fabled island. *Garci Ordoñez de Montalvo* wrote of this mythical region in the early years of the sixteenth century: "Know that on the right hand of the Indies there is an island called California, very close to the side of the Terrestrial Paradise . . . the strongest in all the world, with its steep cliffs and rocky shores." The arms of its inhabitants, he went on to relate, "were all of gold, and so was the harness of the wild beasts which they tamed to ride; for in the whole island there was no metal but gold."

Throughout the legendary years of California, the gold lure seems to have beckoned repeatedly. When Hernando Cortez heard of this country north of Mexico, his impelling desire was to journey thither that he might explore for gold. He sent expeditions by both land and sea, but all failed and his desire was never fulfilled. Other conquistadores likewise attempted to open up a way to the alleged wealth of California, but it remained for the heroic Franciscans—men of the church—actually to settle the country.

In 1769, Miguel José Serra Junípero—a vigorous and dauntless priest—led a party of missionaries from Old and New Spain into California, for the purpose of converting the savages. They were not seeking gold and they did not find it. Instead, they found disorganized, warring tribes of Indians, whose civilization was unbelievably primitive. They ate anything available. Acorns and roots were their chief diet, supplemented occasionally by fish and wild game, reptiles, insect larvae and worms: "almost everything, in fact, except dogs and men." The men wore skins wrapped around their loins; the women, from either modesty or vanity, wore double petticoats or aprons, nothing more.

The Spanish friars settled down to work. They had brought with them grain, fruits, vegetables and cattle. They tilled the virgin fields, they irrigated the dry savannas. Indefatigably they educated the Indians in an attempt to build up an agrarian culture under the

church. Olive groves and vineyards and pasture lands replaced tangled wilderness. The teaching and training of the Indians kept pace with the material development: laboring together, padre and Indian built and planted, and slowly the California missions came into being.

Visitors today can see shaded cloisters, campanarios, patios, fountains, vineyards, and gardens developed by the Franciscans at the cost of bloodshed and untold sacrifice.

The Hispanic-California era definitely was born when colonists arrived from Spain and Mexico. Pasture lands were plentiful and rich. Gradually the great ranchos and haciendas were built up. As the country developed and became wealthy, the hacendados revived the culture of Castile and Asturias. These men of Spain, in colorful and splendid attire, were noble in their bearing, they were gallant, they were gay. Their music was tuneful; their dances were spirited; their fiestas were gorgeous in color. Within their hacienda walls they built up small worlds of activity and contentment. Wayfarers, riding through the country, never failed to receive a cordial welcome, genuine hospitality, and often gracious bounty at the ranchos. In those days, the Californios found life warm and generous.

But their civilization was destined to be transient. Gold lay hidden in the hills and its existence was known long before the Forty-niners. There are well-authenticated stories of Indians coming to the missions from the back-country with small nuggets. One of the old Franciscan padres, whom I knew very well, told me that the mission fathers opposed the Indians in their search for brightly-speckled nuggets and so far as they were able smothered the reports of gold. They were interested only in Christianizing and civilizing the savages. The rancheros were accomplices of the Franciscans, in hushing rumors of gold. They also feared the arrival of gringos, since they knew what sudden wealth might do to the country. They hoped to preserve their leisurely life at the haciendas.

In 1841, Francisco Lopez, who was employed at the San Fernando Mission not far from the thriving village of El Pueblo de Nuestra Señora la Reina de Los Angeles, was tracking his strayed burros through Santa Feliciana Canyon in the San Fernando hills. He picked up a large nugget, which some years later was sent to the

United States Mint at Philadelphia. This was the first California gold to be minted, and when stamped into coin had a value of \$344.75.

As the result of the Lopez find, local prospectors of some previous experience in Sonora and other parts of Mexico started placer mining in the canyon, and during the course of the next two years panned out a hundred thousand dollars' worth of gold. This did not in any way stimulate the search for other gold deposits, however, and played no part in the development of the country.

The few non-Spanish settlers who had come to this simple and peaceful country were not Argonauts. They had come as pioneers to farm the river valleys and to graze their cattle on the hills. A very few with unusual imagination, such as Johann August Sutter, a Swiss settler, had succeeded in creating great landed estates on the model of the Old World. Chance intervened to terminate abruptly this pastoral life and early development.

On January 24, 1848, James Marshall, a carpenter, was erecting a sawmill for Johann Sutter on a creek running through his princely estate. A few yellow specks shone in the sand of the mill race. Marshall realized that he had found gold. Swearing the mill crew to secrecy, he hurried to tell Sutter of his find. But a discovery of this magnitude could not be concealed. While Marshall was gone, the mill crew whispered among themselves at first, and then confided in their wives and neighbors. The news spread with incredible rapidity up and down the west coast, across the Pacific Ocean. Within six months it had reached the eastern seaboard of the United States.

*Towards the end of 1848 a huge tide of gold-seekers, adventurers, and traders set out for California. The peaceful mission life, the quiet plenty of hacendados and early colonists was over; the western *Annus Mirabilis* had arrived—The Year of the Gold! The Age of Gold had succeeded the Golden Age, and, as the historian Bancroft observes, “how different!”*

The Autobiography of John Hays Hammond

CHAPTER ONE

Heritage of a Californian

THE FORTY-NINERS AND OTHERS—SAN FRANCISCO EMERGES FROM THE FLATS—EMPEROR NORTON—“COUSIN LILY,” ANSWERS THE FIRE ALARM—CHINATOWN AND THE BARBARY COAST—JUDGE LYNCH AND THE VIGILANTES—THE PIONEER CREED—SAN FRANCISCO OF THE SIXTIES—MY FIRST EARTHQUAKE—THE PONY EXPRESS BRINGS NEWS OF WAR

On April 1, 1849, the steamer *Oregon*, out of Panama, slipped into the quiet waters of the harbor of San Francisco. This small side-wheeler was bearing the first, or nearly the first, of the Argonauts answering the call of gold. As she cleared the Golden Gate, her bow was black with tense figures gazing eagerly over the mud flats and sand hills towards the mountains in which lay El Dorado.

Among the adventurers who streamed down the gangplank was my father, Richard Pindell Hammond, major of artillery in the United States Army, who had been ordered to the new territory of California for garrison duty.

Precluded by his position from joining the rush to the diggings, he yet, by virtue of the date of his arrival, was entitled to hold the full rank of a Forty-niner.

While a distinction between the pioneer of 1849 and the pioneer of 1850 might seem purely arbitrary, the first comers affected to see a great difference, and made of it a point of pride. They asserted that they alone had broken the trail and others, coming even as recently

4 The Autobiography of John Hays Hammond

as Fifty or Fifty-one, were merely followers. One was either a Forty-niner, or one was not. To the former category belonged the elect who had led the way to fame and fortune; if so benighted as to have been a follower instead of a leader in the memorable hegira, one was, to say the least, unfortunate.

This distinction of priority was sometimes carried to inordinate lengths. When Stephen J. Field, afterwards associate justice of the United States Supreme Court, offered himself as a candidate for the newly created office of alcalde of Marysville, a small village on the Yuba River above Sacramento, the supporters of a rival candidate objected to him on the ground that he was a newcomer. Field had been there only three days; his opponent had been there six.

In spite of its stately name, the village of San Francisco was in 1849 no more than a heterogeneous collection of huts and canvas shelters, sprawling over the flats bordering the bay. In the wake of the gold discovery, California began to receive the mounting tide of fortune hunters, and San Francisco was the distributing point of all those who came by sea.

My father's military duties in San Francisco could not have been onerous; during the first few months after his arrival he found time to embark in other activities. In partnership with General William Tecumseh Sherman, a West Point collegiate who had already been a year in California, he made a survey for the promoters of a new city. In the heated imagination of the forward-looking California real estate men of 1849, their town was to rival the Atlantic metropolis and to become the "New York of the Pacific." According to their theory, and looking back it would seem reasonable, all traffic inland would have to stop at its wharves to equip for expeditions to the outlying mining districts up the Sacramento and San Joaquin rivers. This dream city never materialized; in fact, during 1850 it had a post office just long enough to postmark one envelope.

In spite of this initial failure, the idea of converting waste land into home sites had so captured my father's imagination that in 1851 he resigned from the army and formed a partnership with Captain Charles M. Webber. As surveyors and engineers, these two young men laid out the city of Stockton, which grew and prospered. Lo-

cated at the head of navigation of the San Joaquin River, it became the logical outfitting station for miners heading for the central part of the state. They also planned Tuolumne which, having no *raison d'être*, soon disappeared.

By this time my father had become a man of mark in the community and was shortly after elected to the State Assembly; in 1852 he was chosen speaker of the House. His main interest thereafter was in the political organization of his adopted city and state.

Many of his fellow officers in the Mexican War had likewise followed the swing westward. Among them was John Coffee Hays, former colonel of the Texas Rangers, known to his admiring contemporaries and to history as Colonel Jack. In 1851 he became the first sheriff of the turbulent community of San Francisco. This honor was by no means uncontested. The colonel's opponent, a store-keeper, proved to be a serious rival. With great political sagacity, he hired a brass band to play in front of his store on election day and was fast polling all the votes.

When Colonel Hays realized the emergency, he mounted his horse, a beautiful, spirited, black animal, perfectly trained to obey the slightest word or touch. Galloping into the middle of the plaza, where the voting was taking place, the colonel put his mount through one fancy turn after another, and continued to make him dance to his rival's music until the polls were finally closed. The votes were counted—and the colonel had won.

The tide of pioneers was steadily mounting during the early fifties. Whether the western adventurers came "the Horn around, the Isthmus across, or the land over," the trip entailed hardship and heart-break. In 1852 my mother, Sarah E. (Hays) Lea, a widow with a small daughter, started out on the hazardous journey to California to visit her brother, Colonel Hays.

Leaving her ship at Aspinwall, now Colon, in company with the throngs of gold-seekers she crossed the Isthmus by donkey-train through the pestilential jungles. It took a lot of courage as well as physical endurance to survive this trip. Many people died on the way. Although my mother and her daughter Lucy were fortunate in avoiding the deadly yellow fever, they were, like all the pilgrims, ill and exhausted when at last they reached San Francisco.

6 The Autobiography of John Hays Hammond

Soon after her arrival, she met my father, and in 1854 they were married.

My introduction to this world occurred in San Francisco, March 31, 1855, just seven years after Marshall's joyous eureka had startled the globe. Although the oldest of seven children, I was necessarily relegated to the inferior category of "followers" of the Forty-niners, who could hope to achieve only reflected glory, and whose duty it was to regard the Ancients with the reverence and the solemnity which were their due.

The San Francisco of my infancy was greatly changed from the straggling little settlement my father had seen from the crowded deck of the side-wheeler barely six years earlier. In spite of the constant traffic to and from the mines, there was an air of settled business. The town had been on several occasions almost entirely destroyed by fire, and each time, by the undefeatable energy of its sturdy citizens, had been rebuilt and better built. In the business section the stores, saloons, and lodging houses of canvas or rough boards had given way for the most part to brick buildings, sometimes as much as two stories high. With almost incredible rapidity the haphazard village of the gold year had climbed up Telegraph, Russian, and Rincon hills. Seven years later there was a population of 70,000.

The houses on Rincon Hill, then the fashionable section of San Francisco and the one in which our home was located, were constructed of wood. The dusty, unpaved streets were soon covered with planks, slivers from which would catch in the women's long dresses of the period. Although prairie schooners and springless dead-ax wagons were still to be seen, they were no longer in danger of being mired to the hub; and the humorous signs, "This street is not passable—not even jackassable," had disappeared.

The sidewalks were constantly crowded with human beings of every class and description. Sunday was a gala day, with gambling halls, theaters, and saloons wide open and crowded. Sailors of every nationality rolled arm in arm along the streets, miners lounged in saloon doorways, Chinese in native costume, with pigtails swinging, padded along unobtrusively, dark-skinned hacendados wearing broad sombreros clattered in from their great ranchos. Noticeable among the crowd, by virtue of the great diamonds glittering in their cravats



GOLDEN GATE, SAN FRANCISCO, 1855



MY FATHER, RICHARD PINDELL HAMMOND,
ON LEAVING WEST POINT

and on their conspicuously white hands, were the gamblers. The black felt hat, the Prince Albert coat, and the golden cable looped across the waistcoat was the exaggerated uniform of their trade.

The odd and picturesque features of San Francisco life in the early sixties were naturally those which most deeply imprinted themselves on my boyish mind. Many were the conspicuous characters to be seen on the streets of San Francisco, but most vivid to my youthful recollection was that remarkable character known as "Emperor" Norton, whose story illustrates the freehanded generosity and kindliness of the time.

Although born in Pennsylvania, the emperor had long been a California fixture. It was said that, after one of the fires of the fifties, in which he lost all his property, his mind went astray, and he announced himself Emperor of the United States and Protector of Mexico. There is also good authority that he once offered his hand in marriage to Queen Victoria. In any case, he was accustomed to bear himself as much like an emperor as an American could, walking majestically and speaking to all in graciously royal tones. As well as ancient and shabby clothes would permit, he dressed his part, often completing his costume with tarnished gold epaulets of great magnificence, and a marshal's hat.

Even boys like myself were generous and indulgent to the old fellow. He had become an institution, and editors were glad to insert in their newspapers his "proclamations" to his loyal subjects:

Know ye whom it may concern that W. Norton I, Emperor Dei gratia of the United States and Protector of Mexico, have heard serious complaints from our adherents and all that our imperial wardrobe is a national disgrace, and even His Majesty the King of Pain has had his sympathy excited so far as to offer us a suit of clothing, which we have a delicacy in accepting. Therefore we warn those whose duty it is to attend to these affairs that their scalps are in danger if our said need is unheeded.

At long intervals, when his well-worn suit of clothes became too obviously unfitted to his exalted rank, the Board of Supervisors pre-

8 The Autobiography of John Hays Hammond

sented him with a new one. He was allowed to order meals in restaurants, and regally charge them to the imperial account. The fact that he could draw checks of from fifty cents to five dollars and find bank tellers kind enough to honor them might indicate that he was not completely deranged.

For twenty years his make-believe kingdom endured, and when he died in 1880 he was given a public funeral.

After all these years San Francisco has remained loyal to the memory of Norton. Recently he was reburied in Woodland Memorial Park, and a battalion of United States infantry fired a three-gun salute over the grave of Emperor Norton I.

There was no paid fire department in the city; each ward had its own engine and volunteer fire company. One of the companies, called the Occidental, was made up of younger members of prominent San Francisco families. As a young boy it was my greatest delight to hear the fire alarm tolling from the tower of the City Hall where a lookout was posted day and night. All the boys of the neighborhood answered the call and ran behind the engine for what seemed to us miles. At the scene of the fire we were very much in the way but we enjoyed the excitement hugely.

Our most honored honorary member was the daughter of a retired army officer, Dr. Charles Hitchcock. Cousin Lily, as I called her, was a high-spirited girl, who roused an individual conflagration in the breast of each member of the company. She was so earnest a devotee that even at a ball she wore her fire badge. When the alarm sounded, she always sat with the driver on the fire engine.

In those days everybody employed Chinese servants and found them remarkably reliable, faithful, and efficient. When a tong war was not raging, or the yellow plague flag had not been run up in the Chinese quarter, I was allowed to go there with our cook. Even in so colorful and so bizarre a place as San Francisco the Chinese section struck a gaudy alien note—shrill piping music and unfamiliar smells, slant-eyed children tumbling around the streets, and sometimes a woman toddling on miniature bound feet, looking as though she were about to capsize. I always came home laden with fire-crackers and exotic sweets.

There was one place strictly forbidden to me but from which faint echoes constantly drifted into my world. This was the Barbary Coast. Crowded with saloons, dance halls, brothels, gambling dens, sailors' boarding houses, and doss joints, it gave San Francisco the reputation of being the "Wickedest City in the World." Gamblers, harlots, press gangs, and confidence men kept wary eyes upon gold-seekers and battened on them. Since the Barbary Coast was outside the pale of the respectable community, however, it represented but a small and unobtrusive part of the life of the city.

By the time I was ten years old the problem of controlling the criminal and lawless elements in this frontier society had already been solved by the Vigilantes. I often heard tales of their deeds from Colonel Hays, General Sherman, and William T. Coleman, a prominent merchant and former leader.

The issue between crime and order had been fought out chiefly in San Francisco. The three outlying river towns, Marysville, Sacramento, and Stockton, each a terminus of steamer transportation towards the gold-bearing foothills, had yielded precedence to the seaport, which was now indisputably a city. In its turbulent population the slow and peaceful method of developing orderly government, as practiced in the New England town meeting, had been obviously impossible. The efforts of the elected authorities had grown constantly more feeble and ineffectual.

The irregular endeavors to establish order in 1849 and 1851 culminated in the movement of 1856. At that time the government of California, headed by a governor, a legislature, and a supreme court, had been completely paralyzed by corrupt politics. In San Francisco, session after session of the court meted out no justice; murder after murder went unpunished; crime after crime against property was committed in places high and low. Merchants, bankers, and professional men, disgusted by the very word "law," decided to defy the rankly unjust decisions of the supreme court as well as the grossly illegal and partisan orders of Governor J. Neely Johnson.

Angered beyond endurance by the murder of a San Francisco editor, the great Vigilance Committee of 1856 was formed under the leadership of W. T. Coleman. Its members assumed every responsibility. In the harbor they seized coastwise schooners laden with

10 The Autobiography of John Hays Hammond

arms which they believed had been sent against them by Governor Johnson. Known criminals were tracked down, captured, and tried in orderly fashion. If convicted, they were publicly hanged from a beam protruding from a headquarters' window. The executions were carried out in the presence of the Vigilantes and of curious crowds. San Francisco was swept as clean of crime as was ever possible in any such frontier city.

On the day the committee felt its object had been accomplished, the total membership, accompanied by its artillery, marched in column through the town. But, as the procession broke ranks and mingled with the crowd, the word was passed from mouth to mouth that the Committee of Vigilance was "fully prepared to reassemble and resume duty whenever necessary!" Not only did the memory of its stern justice continue as a restraining force over the evil impulses of our farthest west communities, but the substantial citizens who had led the revolt against constituted law continued to operate individually as protective influences.

Years later, in 1880, acts of violence again became frequent. The loud-mouthed rantings of Dennis Kearney, the Sand Lot Orator, were directed principally against the wealthy man and the Chinese laborer. Kearney's followers were brawny malcontents who, because of their numbers, constituted a serious menace. They gathered around him on the sand lots throughout the city and gave vociferous approval to his threats to bomb the mansions on aristocratic Nob Hill and to do away with their owners.

At that time my father was chairman of the Board of Police Commissioners of the city. Although obviously, under these conditions, the office was not a sinecure, my father and his associates (William Alvord, president of the Bank of California, and Richard Tobin, president of the Hibernia Bank), men of brains, firmness, and courage, took a determined stand for the preservation of law and order in San Francisco.

My younger brother Harry, who had graduated from West Point in 1877, was then practicing law in San Francisco, and accepted the position of colonel in the state militia. In order to be prepared for any serious uprising of the Kearney followers, he stipulated that, if his soldiers were attacked, there was to be no firing of blank car-

tridges or aiming over the heads of the rioters. This warning undoubtedly had a deterrent effect on the mob element.

Coleman finally decided that some action must be taken to curb Kearney. With this in mind he arranged a meeting with him at the Grand Hotel in Market Street.

"Kearney," he stated firmly, "you know I'm a man of my word. I was the head of one of the vigilance committees of the early days and helped to hang a lot of damned scoundrels. Now, I want to warn you: if anybody who lives on Nob Hill is injured or any house is blown up, I'll catch you and hang you on the lamppost you see outside this window!"

What Coleman told Dennis Kearney in the Grand Hotel was effective. No outbreak took place. The spirit of the Vigilante still survives as is evidenced by the events in San Francisco in 1934.

In addition to the criminal outbreaks which cast a lurid glare over early San Francisco society, another phase of violence grew naturally from the almost universal habit of carrying a gun. Duels took place with great frequency.

The most famous of the California duels occurred on September 13, 1859, between United States Senator David C. Broderick and Judge Davis S. Terry of the state supreme court. During an acrimonious political campaign insults had been exchanged and a challenge followed. The two principals met in a gray fog in an open space by Lake Merced, just outside San Francisco. Broderick was shot through the lungs and died within a few hours.

I was only four years old at the time, but I later became a close friend of the Terry boys who would repeat the details of the duel to me. Furthermore, my uncle, Dr. William H. Hammond, was the surgeon attending Terry. I have never forgotten his description of how Broderick's German physician, Dr. Loehr, displayed a somewhat tactless efficiency in laying out on the ground under a tree his whole equipment of knives, scissors, bandages, and bottles.

My uncle always opposed the orthodox view that Broderick was so helpless against the superior skill of Terry that he was, in effect, murdered. As a matter of fact, Broderick was the better shot. Terry had a bad reputation for getting into trouble, and his favorite weapon was the Bowie knife, with which he was very skillful; he was no ex-

12 The Autobiography of John Hays Hammond

pert with the pistol. The error was actually made by Broderick's own second who did not ascertain that the pistols were unequal in action. The one given to Broderick was exceptionally light on the trigger; it went off before Broderick had taken proper aim. Terry then had a free shot and Broderick was killed. I have often seen these pistols and held them in my hands. They were old dueling pistols belonging to Dr. Dan Aylette, a friend of my father.

There was poetic justice in Terry's own end several decades later. He emerged from the cloud under which he had been living since the duel to become attorney for Sarah Althea Hill, commonly referred to as the Rose of Sharon because of her relations with Senator Sharon of Nevada, multimillionaire Comstock mine owner. During the suit Terry became very angry at the ruling of Justice Stephen J. Field, who was trying the case. He threatened to retaliate whenever the opportunity should present itself. Although Terry lost the case, he married his client.

By chance, Field and Terry later met in the lunchroom at Lathrop, on the Southern Pacific Railway. Justice Field, accompanied by a United States marshal assigned to him as bodyguard, had seated himself at a table. Terry approached Field and, after a few words, struck him in the face. The marshal thereupon shot Terry dead. Mrs. Terry ended her days in an asylum.

The Terry-Broderick duel was the last of any importance in California, although dueling persisted in other parts of the country. As a matter of fact, the men who originally introduced dueling in the Far West had in the main come from the South and had brought the code duello with them.

Since public affairs were generally conducted in the Balkan fashion in those times, it was often unwise for any man to take too radical a stand unless he was prepared to vindicate his principles by ordeal of combat. Dueling did have one good effect. The risk of incurring a challenge undoubtedly encouraged prudence in speech. It behooved every man to guard his tongue carefully, for the words "liar" and "scoundrel" were not used idly; they were intended as affronts and accepted as such. Dueling was, in fact, so inextricably bound up with one's personal character and social standing that, as Judge Edward McGowan remarked long afterwards, "It required more

bravery to decline than to accept a challenge, and the man in California in those early days who refused to fight when challenged was considered outside the pale of genteel society."

By the time I was old enough to go alone to the wharves, the original mud flats had been filled in, and new land extended from Sansome Street toward the bay. Rather than take the trouble or go to the expense of removing the hulks which had been beached on the flats, earth had been dumped around them. The old steamer *Niantic* had even been turned into a hotel and was so used until finally destroyed by fire.

In place of the Civic Center, with its municipal buildings, opera house, library, and gardens, were sand hills overgrown with sparse brush. On the site of the present Golden Gate Park I hunted rabbits and quail, and even caught a wildcat now and then.

Regular steamer days came only about once a month. As soon as a steamer was sighted outside Golden Gate, the flag was run up on Telegraph Hill. Everybody who could possibly leave his duties hurried to the wharf. If we were lucky enough to be free of school at the moment, my schoolmates and I would rush to see the steamer dock and watch the cargo being unloaded.

In the sixties and seventies the so-called bonanza kings began to build enormous homes on Rincon and Nob hills. The fact that these houses were pretentious did not establish for their owners any social superiority. San Francisco was pre-eminently known for the spirit of democracy that prevailed there.

There was no such thing as planned architecture. W. T. Coleman owned a Roman villa, George Hearst (later a senator) erected a Spanish palace, James Ben Ali Hagggin, his partner, lived in a huge gray mansard structure, and Jim Flood, of Nevada silver fame, inhabited a huge brownstone mansion surrounded by a brass fence, the polishing of which was one man's full-time job. This is now the Pacific-Union Club, of which my father was the first president. The houses which had come around the Horn in sections from New England were curiosities in architecture. When they were put together again, the pieces somehow did not seem to match.

The influence of the many Southerners in the community undoubtedly was a contributing factor to the generous and gay flavor

14 The Autobiography of John Hays Hammond

which San Francisco possesses. For many years the city has been renowned for its incomparable restaurants, surpassing even those of New Orleans. This was not because the chefs and cuisines were superior to those of Paris, Vienna, and other parts of the world, but because the climate and the other unique characteristics of the country made available an extraordinary variety of rare meats, fruits, vegetables, and wild game. Complementary to this the cosmopolitan character of the population was responsible for variety and color in the changing customs and amenities of the city. Each racial unit had its own types of food, and expert methods of preparing them. French, German, Mexican, Chinese, and Italian restaurants catered to gourmets of all nationalities. Among the more famous cafés of the seventies and eighties were Jacks, Maison Dorée, Poodle Dog, Pup, and Jules for wild duck.

At the age of eleven I had my share in a type of excitement common to Californians. Prior to 1906, an earthquake was called an earthquake and not a fire. One morning, with other boys, I was playing baseball, and, while running to catch a fly, I was tumbled suddenly to the ground by a sharp shock. The batter was too frightened to take advantage of his base hit. Several "bad" little Mexican boys, who were clandestinely smoking cigarettes on a platform they had built in a tree for a secret refuge, fell on their knees and prayed loudly for the intervention of the saints, promising complete reform.

During the next few days there were many quakes and, much to our delight, school was dismissed for the week.

On the following Sunday in church, I remember that we were startled by a slight tremor, and a slow but definite foreboding filled our minds. The minister appealed to the congregation to remain seated, saying, not very convincingly, that there was no danger. At that moment the building shook again. Seeing his previous statement had not quieted the evident alarm of his congregation, he said, even less convincingly, that there could be no safer place than the House of the Lord.

Just then came a shock that rocked the building. The pastor tumbled down from his pulpit and fled precipitately up the aisle and out, muttering, as he outdistanced his flock, "I'll take my chances outside!"



MY MOTHER, SARAH E. (HAYS) LEA HAMMOND



MY SISTER AND MY BROTHERS, AND MYSELF: JOHN,
MARY-ELIZABETH, HARRY, WILLIAM

As a youthful but enthusiastic stamp collector, I was particularly interested in the incoming foreign mail. After each boat was docked I made what for me was a considerable journey to the various mercantile houses on California, Montgomery, and Sansome streets. Hat in hand, after mustering up the necessary nerve, I bolted into the establishment, introduced myself and asked whether I might have some stamps from the newly arrived mail. Since my father was known to every merchant in town, I usually had good luck. If the merchant happened to be busy, I would tactfully excuse myself and unfailingly return next day.

My early collection was destroyed in the San Francisco fire and I never had another collection hobby until I started a gallery of signed photographs of men whom I admired for their achievements.

My father often had to go on business to Sacramento. I was sometimes allowed to accompany him on the overnight boat trip. Although it was the capital of the state, Sacramento was only a straggling village, and frequently the river overflowed and we had to make our calls in rowboats through the flooded streets.

Sacramento was built around what had formerly been Sutter's Fort and was not only the point at which the prospectors outfitted, but also the terminus of the Pony Express, and the Overland Stage line. It was thrilling for me to see the six-horse stagecoach start off on the two thousand mile trip to the railhead at St. Joseph, Missouri, colloquially known as St. Joe. Inside were the passengers, high up on top was the luggage; in front was the driver, and directly behind him the Wells-Fargo shotgun messenger.

Even more exciting was the arrival of the Pony Express, which covered the same distance in nine days. Whenever I had the good fortune to be in Sacramento the day it was due, I was always to be found among the yelling crowd as the jingling, sweating little cayuses came pounding in to the station.

Up to August, 1860, the through rates on the Pony Express were \$5.00 per half-ounce or under, but from that date letters weighing a quarter-ounce or under were carried for \$2.50. At one time I had the largest collection of Pony Express franks of any philatelist of my acquaintance.

16 *The Autobiography of John Hays Hammond*

The Pony Express service owned several hundred horses and employed upwards of a hundred plucky riders, who made their way through country infested with Indians, over snow-clad mountains, and across arid deserts. Now an airmail letter can be sent for six cents from New York to San Francisco in twenty-four hours, and the trip has been made in less than twelve hours.

It was the Pony Express that brought from the Missouri River the first faint rumblings of impending civil conflict.

CHAPTER TWO

A Boy on the Frontier

THE YOUNG SECESH — THE MARTIAL HAYS' AND
HAMMONDS — COLONEL JACK — THE ENCHANTED
ROCK — HEROES AND HERO WORSHIP — LEARNING
TO ROUGH IT — REHABILITATING SILVER —
THE BRETT HARTE COUNTRY AND THE
YOSEMITE VALLEY — PANING MY FIRST GOLD

I began my formal education during the Civil War. I was sent to the Lincoln public school, in San Francisco, which at that time contained about two hundred pupils. It was an excellent school and we received good training. It was not because of the fact that my father was president of the Board of Education that I went to a public school, but because he could not afford a tutor or private school. Possibly as a result of my own experience, I have always been a great believer in sending children to public schools.

Because our parents were from the South, we considered ourselves Southerners, and my brothers and I had many a fist fight with the Yankees of our own age.

My mother's family came from Tennessee and, like my father's, included many soldiers. Her grandfather, and other relatives, served under Jackson at the Battle of New Orleans in 1815. It was he who built the Hermitage, near Nashville, which he later sold to President Jackson.

One of my mother's brothers was General Harry T. Hays, commander of the famous Louisiana Tigers in the Confederate Army.

18 The Autobiography of John Hays Hammond

Another brother was John Coffee Hays—Colonel Jack, of the Texas Rangers, for whom I was named. He was sixteen when both his parents died within a few days of each other, of yellow fever. The seven orphans were taken by an uncle to his plantation in Mississippi. One morning in 1837 Jack's aunt found attached to her pincushion a note in which Jack said: "I have decided to lighten the burden of so large a family by making my own way in the world, and I have gone away."

Although California was a Union state, and the Southerners there were viewed with suspicion during the Civil War, yet we were so far removed from the scene of actual conflict that the bitterness of personal animus was greatly lessened. Some Southerners, including my uncle, Colonel Jack Hays, were paroled, after giving their word to the northern officers that they would not join the southern cause.

My father found his business enterprises made difficult by the war; his political activities ceased. Many northern officers in command in California were his West Point friends, and they were as considerate as possible of my mother's feelings. The progress of the war was so tactfully touched upon when they visited at our house that friendly relations were maintained throughout the struggle.

In later years I asked my father why he had not joined one army or the other. His answer was that, although then reputed a wealthy man, he had at the moment lost so heavily in a worthless gold mine and other ventures that he did not feel justified in leaving a wife and small children.

Of far more importance than this, however, was the fact that he could not give whole-hearted allegiance to either side. He believed firmly that the war had been brought on by northern and southern politicians: had it not been for the intemperate attitude of the leaders on both sides, some compromise could have been worked out and war averted. Unfortunately for his peace of mind, he was a Unionist, in that he opposed dismemberment of the Union, while his natural sympathies were with the South.

Most of the Hammonds had led adventurous lives from the time they first left England and settled down in Maryland where they intermarried with the Ringgolds, Tilghmans, Lloyds, Galloways, and



MY UNCLE, COLONEL JACK HAYS, ON ENCHANTED ROCK



MY SISTER, MARY-ELIZABETH: BETTY

other prominent families who have their roots in the foundations of the colony.

Major General John Hammond had been vice-admiralty judge, member of the House of Burgesses, and one of His Majesty's Council in that colony. His tomb is still to be seen in Annapolis at the entrance of St. Ann's Protestant Episcopal Church. The ground on which it stands had been deeded by him "in evidence of the love I bear my fellow man." On his death in 1707 he left a sum of money to be expended in the purchase of a brass-bound Bible, cherished to this day in the archives of St. Ann's.

His great-grandson, Mathias, built at Annapolis the house still known as the Hammond-Harwood house, one of the finest examples of Colonial architecture extant in America. The story is that this home, planned and constructed by him for his future wife, finally led to the breaking of their engagement. He became so much interested in the building and its furnishings, which he collected with exquisite taste, that he failed to pay his fiancée the attentions she thought due her. After suffering what she considered his neglect for some time, the young lady finally lost patience and sent her negro servant to return ring and presents to young Mathias. Neither ever married.

My grandfather, Dr. William Hammond, army surgeon, was a Forty-niner in the same sense as my father. He had arrived in San Francisco in the autumn of 1849 and was stationed at Benicia, where he died in 1851. Two other sons, my uncles, came to California about this time. William Hammond, Jr., was first surgeon in the United States Army and later a well-known practitioner in San Francisco. George H. Hammond, surgeon in the navy, served under Commodore Farragut at Mare Island and was lost under the same command in the Civil War. My father and my uncles had been with my grandfather in the Mexican War.

My father was born in 1820 in Hagerstown, Maryland. At the age of twenty-nine when he came to California, his life had already been full of adventure. At seventeen, he had been appointed a cadet to West Point by President Jackson, a personal friend of my grandfather. After his graduation in 1841 he was sent to Fort McHenry, in Baltimore. He was still there when, just after the Seminole War,

20 The Autobiography of John Hays Hammond

Inspector General Quitman came through on a tour of inspection of the South. The general attached my father to his staff and then inquired: "Do you know any West Pointer who can write a good legible report, and who has a legal trend of mind? I'd like to take him along with us."

My father replied: "There's William T. Sherman who's recruiting out in Ohio. I've just had a letter from him and he doesn't like his work there."

Sherman was sent for and joined them on the tour of inspection. Years later Sherman told me that the working knowledge of the topography of the South obtained at this time proved of inestimable value to him on his March to the Sea. At the beginning of the Mexican War, in 1846, Sherman was ordered to California, and consequently had no part in it.

My father was summoned to West Point but found a substitute for that unwelcome detail and went instead to Mexico, where he served under General James Shields. After participating with his regiment in the siege of Vera Cruz, he was made captain for gallant and meritorious conduct at Cerro Gordo. Later at Contreras and Churubusco his gallantry won him the further rank of brevet major. During the storming of Chapultepec, as related by the *United States Army Register*, he narrowly escaped death, his horse being shot under him, and he himself being slightly wounded. The *Register* continues:

When the city of the Montezumas fell into the hands of the Americans, Major Hammond was appointed Secretary of the State Government, and acting Judge Advocate. After the close of the war, Major Hammond was ordered to California, and resigned from the Army, May 31, 1851.

My father was fortunate in his military career, in having as his associates many officers who later, in a far more terrible conflict, were to rise to fame on one side or the other. He won the enduring friendship of Robert E. Lee and Joseph Eccleston Johnston. Many of their letters to him, which have been preserved, show the mutually affectionate relations founded during the stormy days of the Mexican campaign.

The friendship with Lee was particularly close. In the National Palace in Mexico City the two shared the same room. I still have a yellowed slip of paper in Lee's handwriting, which reveals an unexpected touch of humor in this period before sadder days descended upon the great Confederate leader. Written from Mexico City, it imitated the manner of army regulations, and was facetiously entitled "Memo for Sir Richard," who was about to depart for the States. Lee adjured him:

1. Not to go mad, either from joy or drink.
2. To eschew all tigers, etc.
3. The three boxes, marked 'G. W. P. Custis, etc.' to be shipped to the Dist. of Columbia, to Mr. Custis, or to Baltimore to Mr. L. Marshall, Esq., U. S. Dist. Attorney.
4. The grey pony, to have the same destination. Particular directions to be given about his *tail*, and *mane*, and being *covered* at sea. He is provided with *two* covers.
5. All bills of expense to be forwarded to the consigners. The Pony has fifty dollars, for current expenses.
6. Get Miss Follie, or Virginia Mason, to ride out to *Arlington* with him when he is in the *District*. Any other pretty girl will do as well.
7. Sometimes think of

R. E. LEE

When the Civil War broke out, Lee and Johnston wanted my father's services for the South, while his old commander, Shields, demanded him for the Union Army.

"I wish to God you were here," wrote General Shields from Washington when about to take the field with his division in March, 1862:

I would give half my pay to have you with me as Adjutant. If I thought you would, I would leave it open. I find no such soldier as you in the army, and you are not so well fitted for anything else. The President and Secretary of War are as honest and Democratic

22 The Autobiography of John Hays Hammond

as I want. God never made an honester man than Lincoln, nor a nobler, truer man than Stanton. Either of them has more honesty in his finger than Jeff Davis in his body. By the way, Jeff has killed the southern revolution. He has made it as tame as a meeting house conveticle. I knew he would do that and the South has found it out too late. Jeff for President, and a Jew for Secretary of War, and drunken M. for Secretary of the Navy, you can easily figure out the end. If you want to come telegraph. I know what your friends will say, but if they knew all I know now, they would advise you to do it.

I would not give you as a soldier for any two I have met here. You are a born soldier and a made soldier, and cannot be anything else.

A month later Shields sent him another message from his headquarters at Strasburg, Virginia:

We have had an interesting fight. I wish you could have been there. It would have reminded you of old times . . . The war is not over yet. There will be many a hard fight before the South goes down. They fight hard, at least their Potomac Army does.

I learned to appreciate the value of my father's army connections when, after the war, I was privileged to meet on terms of friendship such men as Sherman, Grant, McClellan, McDowell, Halleck, Sheridan, Longstreet, Beauregard, Johnston, Hancock, Rosecrans, Gibson, and other heroes of the Civil War. I listened eagerly as these men gave their views of the problems facing the country in the difficult period of reconstruction.

Of all these generals I knew Sherman best. In fact, I persuaded him to send his son Tom to Yale, and I always felt a certain responsibility to look out for Tom while he was there. This didn't prove irksome.

During the eighteen-eighties McClellan, then living in New York, often dropped in at my office and took me to a little restaurant in Hanover Square where they served excellent Mexican food.

On my return from a Central American mining trip in the middle eighties I stopped off at New Orleans. There I spent a delightful day with Beauregard and Longstreet. The state had asked these two generals to head the huge Louisiana lotteries; because of their unquestioned honesty, it was believed this choice would inspire public confidence. A few years later the lotteries were abandoned, not on account of any chicanery in their management but because of the disapproval of the federal government of such legalized games of chance.

When I was twelve my mother died and I was sent to a boarding school in Oakland. Two years later I attended the preparatory department of the University of California. While I was in what was known as the fifth class of the university, in 1870-71, I formed a close friendship with a classmate, Josiah Royce, who became one of America's leading philosophers and the author of one of the best histories of early days in California.

In spite of these excellent opportunities for academic education, a valuable part of my early training was my friendship and association with my uncle, Colonel Jack Hays. Almost every Friday afternoon I walked out to his ranch, about three miles from Oakland, and back again on Monday morning.

Were an account of the Indian fights, skirmishes, and adventures of Colonel Hays to be given to the world, says a quaint history of the Texas Rangers published in 1847,

it would fill a volume, and the work would be looked upon rather as the effusion of a fertile imagination, consisting of legendary tales, and the adventures of some fictitious knight-errant, than the faithful account of the achievements of a man, living and moving among us, and that, too, comparatively unknown.

24 The Autobiography of John Hays Hammond

The stories Uncle Jack told us were better than a whole library of books of adventure. Shortly after he left his uncle's home in Mississippi, he turned up at San Antonio where he found work in surveying frontier lands.

Since his ability to lead men was soon recognized, he was chosen to captain several independent forays against the Indian tribes who roamed the border. So great was his success in fighting the savages that eventually the Texas Congress appointed him captain of a scout company, and in 1840 promoted him to the rank of major, charging him with the defense of the frontier. Soon afterwards he was advanced to the rank of colonel.

In 1844 he was the hero of an historic frontier exploit. He became separated from his party of Rangers while tracking an Indian tribe which had gone on the warpath. He climbed to the top of a large rock to survey the surrounding country. The entire party of Indians had apparently seen him as he climbed. They were following him.

Ordinarily in those days, the Rangers were armed with muzzle-loading, double-barreled pistols. But by some freak of fortune he had with him a Colt six-shooter, incidentally the first gun of this kind ever manufactured. This revolver had been designed for his use and presented to him by its maker. As the braves attacked him at the summit of the rock, he shot them down, one by one, rapidly and with calm precision. The Indians fell back in utter confusion, leaving a half dozen dead warriors behind them. The speed and accuracy of Colonel Jack's firing completely bewildered them. They charged again and once more a spatter of bullets checked them. He was able to hold them at bay for several hours until the other Rangers came to his assistance.

The Indians, dismayed by this new and unfamiliar weapon, were so firmly convinced that some supernatural power had been at work that they named the colonel's place of refuge The Enchanted Rock.

At the outbreak of the Mexican War, Colonel Hays formed a regiment of his old Texan fighters and they, on many fields of battle, rendered conspicuous service to General Taylor's army.

Uncle Jack sometimes took two or three of us boys and some of his own friends on a camping trip lasting several weeks. During the

day he taught us the rudiments of camping; around the fire at night we listened eagerly to his stories. Since he was a singularly modest man, it was only with great difficulty that we could induce him to recount the exciting exploits of his own life. But he knew that his friends would tell the stories should he persistently refuse.

One incident made a particularly deep impression on me. A Mexican colonel of cavalry who had a large reputation for his truculence had challenged Colonel Hays to single combat before their regiments clashed in battle. Colonel Hays accepted without hesitation and they engaged in a duel on horseback. As my uncle described the scene, I could hear the occasional stamp or whinny of a nervous horse and see the men of both regiments, silent but watchful, drawn up in battle array on each side of the cleared space.

Colonel Jack always assured us that he really regretted having been obliged to kill the Mexican colonel, as he had greatly admired his enemy's bravery. The regimental battle followed the course of the duel, the Americans emerging victorious.

I remember the excitement I felt whenever Uncle Jack would let me run my fingers gingerly over the sharp edge of the sword he had obtained in the defeat of the Mexican colonel or even hold the weapon on my knees.

Later in the war, Colonel Hays won a national reputation by storming Independence Hill and the Bishop's Palace at Monterey; while on the march to Mexico City his military skill and brilliance were demonstrated once more.

On the conclusion of the war Uncle Jack went to San Francisco where he served as sheriff. When Franklin Pierce was elected president in 1853, my father and Colonel Jack, neither of them then aware that they were to be brothers-in-law, went to Washington for the inauguration of the Mexican War general. It was said that the handsome figure and the fame of young Jack Hays drew about him such a crowd at the official reception that there was danger of his "stealing the show." The two Californians were cordially received and each was rewarded with office: Colonel Hays was made surveyor general of California; my father, collector of the port of San Francisco.

26 The Autobiography of John Hays Hammond

The latter appointment was made on personal as well as political grounds. My father was held in high regard; the many honors which came to him were unsought. Nevertheless, the President felt himself peculiarly indebted to him. When Pierce, as a young officer in the Mexican War, came under fire for the first time, he was seized with that fear to which the bravest men have often confessed. My father, who had broader vision and sounder balance than any other man with whom I have ever come in contact, talked to him, joked with him, and restored his confidence. This good service the President never forgot.

When Colonel Jack gave up his position as surveyor general, he retired to the ranch he had bought near Oakland.

My father also owned several acres there, which he one day exchanged for an old bobtailed white horse. As Oakland grew and prospered and the land increased in value, I tried to figure out the price he would have received from the sale of this land. Compared with the value of the old bobtailed horse, it was unbelievable that it could have mounted to such a sum. Since that time I've never regarded a bobtailed horse with any great degree of affection.

Uncle Jack was not allowed to remain quiet on his ranch. Within a few years the people of Nevada asked him to come to their relief against the Piute Indians who were plundering and murdering. The soldiers of the regular army were unfamiliar with Indian warfare and consequently not trained to deal with the Piutes. Colonel Hays was made commander in chief. Using the strategy he had learned from the Indians themselves, he succeeded in ambushing and exterminating the Piute warriors.

In gratitude for his services, the people of Nevada presented him with a handsome silver service, and at the same time sent to my aunt a beautiful black horse named Piute, which I often rode at the ranch.

During my boyhood, every country place was called a ranch, but my uncle's was really a ranch de luxe. Although in extent not comparable with some of the enormous ranches of the day, it held cattle and, of course, many horses. With its alternating hills and wild ravines, it was an ideal place for a boy with an adventurous spirit. I suppose my lifelong desire for exploration and discovering was transmitted to me from my pioneer ancestry and was fostered





A CHINESE PLACER MINER

by those days spent in the woods with only my young brothers and cousins as companions.

I roamed over the hills of that section until I had learned every foot of them. In fact, I knew them so thoroughly that, when I was fifteen, I was able to guide my father, then a regent of the University of California, and a committee looking for a new site for the university foundation over the slopes of what is now Berkeley. The university was moved there in 1875.

Interesting people came constantly to my uncle's ranch. Outstanding among them was Captain John C. Freaner, who had served in Texas under Colonel Hays. He and Uncle Jack taught my brothers and myself, as boys of five or six, to ride and later to shoot and generally to take care of ourselves in what was still a frontier country.

Bravery was one thing Captain Freaner insisted upon, and ingeniously devised various tests which he never would permit us to flunk. For example, he would leave his pipe, hat, or some similar object in a graveyard located a mile or so down a lonely canyon. Then he would send us boys out into the night each in turn and quite alone, to retrieve the article he had purposely abandoned there. It took all our physical courage to accomplish this feat.

Explorers' blood was so strong in my brothers and myself that there was always a rivalry as to which of us had been in the greatest number of counties in California. After our summer vacation, we would compare notes as to our relative standing in this competition. The entrance into each new county provided us with a thrill as great as that which must have come to Balboa, the famous stowaway from Spain, when from the heights of Darien he first saw the great Pacific.

Our common ambition to visit the entire fifty counties then included in California was not realized by any of us during our younger days. Even when we went east to school we were still immature enough to keep tabs on the different states through which we passed on our trips to college and back. My brothers used to accuse me of taking circuitous routes in order to add an additional state or two to my record. Very likely this was true, and time has not weakened my wanderlust. I have been many times in every state in the Union, and in nearly every section of every state.

28 The Autobiography of John Hays Hammond

A large part of my vacation was customarily spent at the Fairfax ranch in Marin County, California. There, when I was eleven or twelve, I learned to lead the life of a typical young cowboy, which naturally included herding cattle and busting broncos.

Charles Snowden Fairfax, my father's friend and later mine, was the lineal descendant of the famous Virginia earl whose offspring can claim the unique distinction of holding the only "American peerage" ever recognized by this government. Preferring to be known as a plain American citizen, "Uncle Charley" had waived the right of his title. I was greatly influenced by him and he was one of my first heroes. It was on a trip with him that I killed my first deer.

Possessed of the same type of adventuresome spirit as Colonel Hays, the baron—as he was commonly called—had been captain of a company serving under my uncle in the Piute War. His patrician origin was displayed not only in his handsome and athletic appearance, but in his nobility of character.

On one occasion Fairfax was stabbed in the back by a man who bore him a grudge. As he fell to the ground, onlookers thought he was mortally wounded. Nevertheless, he raised himself painfully on his elbow, drew his pistol, pointed it at his assailant, and said, "I curse you for your cowardly attack, but I spare your life for the sake of your wife and children!" Thereupon he fired the pistol into the air.

Fairfax lived some years longer, although without doubt the wounds received at this time hastened his death.

California youngsters of those days took to horse and gun almost instinctively. Shooting was my favorite sport, while riding was only a method of locomotion. Our chief diversion during the summer vacations was to make up an exploring party. Three or four of us would load a horse with grub, blankets, and guns, then hike out to the hills twelve or fifteen miles away and camp there for days at a time. We would kill quail and sometimes even a deer, and fish the brooks for trout.

These pursuits led us far and wide, and I thus learned to rough it with fair success before I was fifteen years old. It was fortunate for me that I acquired early in life the art of taking care of myself, be-

cause in later years the practice of my profession involved much hardship in various parts of the world where the novice was, to say the least, out of place. I suppose I never was a tenderfoot.

It must have been in 1870 that I made the long trip of five days and nights by stagecoach from San Francisco to Los Angeles to visit my schoolmate, Billy Fitzhugh. The stage, suspended on leather straps and drawn by the traditional six horses, traveled continuously day and night. The coach was so heavy that the horses had to be changed every ten or fifteen miles.

Los Angeles was then a village of about five thousand inhabitants, largely Mexican, and the county itself had a population of only fifteen thousand.

Billy Fitzhugh, two other boys, and I hired a pack horse and went camping on the old Wilson ranch, a Spanish grant on part of which Pasadena now stands. The only sign of civilization along the route was the San Gabriel Mission.

One morning I rose early and set out alone to try to find some quail for lunch. The hunting ground was a small canyon, just about where the Pony Express Museum now stands. I had not gone far into the gulch before I chanced upon a bear. Thoroughly startled, I raced back to camp shouting, "Bear! Bear! Bear!" and the four of us immediately sought safety in the nearest trees. We never discovered in which tree the bear found refuge.

The best trip of my boyhood came when I was fifteen and my young brother Bill was thirteen. Our father had gone east on business, leaving us in the care of an aunt. With school just out, forty dollars in our pockets, and the whole summer before us, we felt truly that the world was ours.

First we went to visit General David Douglass at his ranch in San Joaquin County, where we had often been before. Since neither of us had ever seen the Calaveras grove of big trees, which was about forty miles away, we decided one day to have a look at it.

My brother Bill owned a fast roan mustang with one white eye, named Kitty. He made sure of being her sole user by teaching her to buck all strangers who might attempt to ride her. I had no horse of my own and had to borrow one for the week's trip. Near the Douglass ranch lived the Washington Trains, friends of our family,

30 The Autobiography of John Hays Hammond

and from them I borrowed Silver, the old horse on which the Train children had learned to ride. Silver was an unfortunate choice; he was not only stupid and nearsighted, but he was subject to splints and the periodic necessity for repairs delayed us considerably.

When I went to catch and saddle him one morning there was Kitty grazing peacefully, but no Silver was to be seen. I might have thought he had been stolen except that I knew no one could possibly want such a horse. First I called and then I hunted and finally I located him. He had started across the field towards a beckoning haystack and walked straight into a muddy ravine about fifteen feet deep. There he was at the bottom—unhurt, but a sorry sight. It took the better part of the morning to hoist Silver out with ropes and get him rehabilitated. Then Bill whirled away down the trail, shouting tactlessly over his shoulder, "Old plug!"

All my heel thumpings and my exhortations of "Get up, Silver!" were of little avail. I was not riding a horse like Piute. I gripped the double-barreled shotgun (from which my father had made me remove one lock) in such a furious temper that in later years Bill used to say he believed I would certainly have peppered him if I could have caught up with him. But he and Kitty took care of that. By evening my temper had cooled enough for us to make camp together peaceably. A ride of fifty miles in one day may have accounted for my diminished rage; but I have never liked a white-eye since.

Occasionally we slept under the skies or in abandoned prospectors' shanties; more often miners, hotelkeepers, or livery stable men gave us shelter. The fame of our wanderings had preceded us and, at every stop, a hearty welcome awaited us. Everyone was friendly and helpful and glad to show these two youngsters what free-handed western hospitality was like. Though we offered to pay our way, our forty dollars remained practically intact; seldom was money accepted for lodging or food.

Our trip, which we had expected would last the usual five or six days, kept lengthening as we were lured on and on by the prospect of new adventures. At a leisurely pace, stopping here for a day and there for a day when we discovered something that interested us, or when Silver needed to be repaired, we rode through the Sierra Nevadas and the district now known as the Bret Harte country.

I came to know Bret Harte a little later when he was secretary to General E. F. Beale. In spite of his apparently intimate knowledge of conditions in the mining camps, Harte had in reality but little firsthand knowledge of the scenes of his stories. Yet he was able to construct a character almost from the inflection of a voice or make up a tale from the barest hint of a plot.

Leaving the mining camps behind, and jogging along through the wild mountains, we finally penetrated into the yet trackless Yosemite Valley and were, so far as we could tell, the only visitors there in 1870. Now the Yosemite is visited yearly by more people than the half million who were then living on the Pacific coast. Our food supply was derived mainly from the game we were able to shoot, and from the fish we caught without flies, in the Indian fashion.

Fortunately for me we were not quite alone when we moved on to the Mariposa grove of big trees. There I met with misfortune. I fell into the mill race at Clark's sawmill, and, although I could swim, the water was running too fast for a boy's strength. While rapidly being carried into eternity, I was fished out by some of the men working the mill.

Old Galen Clark, its owner, had been the discoverer of the Mariposa Grove. When I visited the Yosemite with President Taft in 1909, I found Clark still living in the valley. He was ninety or over and still sound enough of mind to remember my narrow escape from drowning.

Our expedition carried us even into Nevada. The summer was now nearly over, and we had traveled about seven hundred miles. Our father had returned from the East and discovered that we were missing. After weeks had passed without word from us, he became alarmed and notified Wells, Fargo Express Company messengers to be on the alert. We were making a leisurely return trip, quite unconscious of our family's distress. In fact, by that time we had entirely forgotten we had borrowed Silver for a week and had been gone nearly all summer. Word that our father was scouring the country finally reached us and we streaked for home as fast as our horses could carry us.

The expedition was invaluable to us both. We had been taught by actual experience how to forage for food in wild places, how to

32 The Autobiography of John Hays Hammond

take care of the horses upon whom our safety depended, and most important, how to meet on friendly terms all sorts and conditions of men.

It also gave me my first intimate knowledge of how a real gold mine was operated. So fascinated was I by my first descent into this mine, called Hite's Cove, that I persuaded the owner to allow me to spend several days there, during which time I went down frequently. Hite was said to have married an Indian squaw out of gratitude, because she had rescued him when he had been overtaken by a heavy snow-storm. She was also reported to have shown him the outcroppings of the vein he subsequently developed with so much profit.

Prior to this experience my mining education, though begun at an early age, had been rudimentary. When I was eleven years old, I had gone to pay one of my first visits to General Douglass. Adjoining the general's ranch were gold-placer washings, which a group of Chinese were patiently working over. Because of racial discrimination, the industrious and peaceable Chinaman was not allowed to work virgin gravels; he was limited to reworking the ground already gone over by the masterful white man. While there was no written law, the custom of the camps was sufficient to define his rights. The Chinese miner toiled away unobtrusively in the corners allotted him, but often, through dogged persistence, he made what was to him a modest fortune.

I watched these Chinese working along the streams tributary to the San Joaquin River, and, of course, I could not rest until I had duly inspected the washings and had tried my hand at a little panning. I had not been at it long before my excited gaze encountered some gold dust in the bottom of the pan, and I vociferously acclaimed my great discovery with all the enthusiasm of James Marshall himself. The picture of that eventful moment was later evoked for me by the imagination of the New York *Globe* cartoonist, Camillus Kessler, in his book, *At the Bottom of the Ladder*. It may not be a faithful portrait, but I am sure the air of jubilation is by no means overdrawn.

Thus it was that I became a "miner." As I washed the gravel, sometimes finding as much as fifty cents' worth of gold, dreams of fortune filled my head. I imagined myself a real miner, hiring hordes of Chinese to work for me. I was caught by the lure of gold.

CHAPTER THREE

In Pursuit of an Education

OFF TO THE EAST—I MEET MY FIRST PRESIDENT—
EXPelled ON THE FIRST DAY OF SCHOOL—ARTHUR
TWINING HADLEY—FILLMORE'S PRIVATE TRAIN—
“SHEFF”—A “QUIET” CELEBRATION—WALKER'S
INFLUENCE—EAST ROCK INSCRIPTION—THE PRO-
FESSOR AND THE WAITER—THE OLD COLLEGE AND
THE NEW—THE CLOISTER—OUR BOXING MATCH—
TOWN AND GOWN — AN OLD-TIME WEEK-END —
CHINESE PROM GIRLS — YALE ROWING IN THE
SEVENTIES — HIGH-PRESSURE BOTANY — COFFEE
JACOBS AND WOOLF JOEL — THE YALE SPIRIT

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hen I was sixteen my father decided that I should go east to school. He thought, and justly so, that I was growing altogether too provincial. Although at the time I was reluctant to leave the West, I can now see the wisdom of his decision and have become a firm believer in the advisability of sending Westerners to eastern colleges, and vice versa.

During the summer of 1871 I was packed off in charge of an uncle, Colonel Sprague. It was an exciting day for me when I boarded a train on the new transcontinental railway line which had been completed only two years before. We traveled slowly, so slowly, indeed, that it was not a difficult stunt for an agile boy to jump off near the head of the train and catch on to the platform of the rear car. Few

34 The Autobiography of John Hays Hammond

modern improvements had as yet been introduced on the railroads. Old-fashioned hand brakes were still in use, while the wood-burning locomotives had huge cone-shaped smokestacks.

I was delighted by the fact that the conductor of our train had been scalped by Indians. It was not, of course, the "massacre" scalping which would have taken off the entire scalp; it was merely the removal from the head of the small round piece of epidermis, which signified victory in open warfare.

Traveling across the continent was an interesting and an involved process. The trip to Washington took seven days. We changed trains at Ogden and again at Omaha. From there we crossed the Missouri River on a ferry to Council Bluffs, where the next train connection was made. We changed once more at Chicago. As we crossed the plains we could see in the distance an occasional herd of buffalo, while large herds of antelope galloped alongside the train for miles. Three times a day we stopped for meals. Since the train was often late, the passengers had worked up a fine appetite by the time an eating-station was reached. Frequently, just as we were well into our meal and eating as fast as possible, by some unaccountable arrangement the whistle would blow, the conductor would stick his head in at the station dining room door long enough to shout "All aboard!" and everyone would rush from the tables. I usually scrambled on to the train with a scalded throat but still clutching a piece of bread from which I resolutely refused to be separated.

I shall never forget the thrill I experienced soon after our arrival at Washington. My uncle took me to the White House and introduced me to President Grant. A Cabinet meeting had just been concluded and the members had not yet left. When I was presented to the President he turned to his brother-in-law, General Frederick Dent, and asked him if he did not recall my father from West Point days. General Dent replied that he remembered him only too well, because of a certain escapade in which both had been involved and which had very nearly caused their expulsion. The President then said to his Cabinet: "Gentlemen, if this young man's father had gone north instead of west, he would probably have the position I hold today."

In early October I was enrolled in the Hopkins Grammar School at New Haven to prepare for Yale. The very first day, during the morning recess, I was accosted by some eastern boys who, in typical schoolboy fashion, began to badger me about my part of the world. Although I looked and dressed as they did, something indefinable in my manner or speech made them feel that I was "different," since any deviation from the norm is always a challenge to the young. A boy named Jackson asked me whether I had seen the big trees of California; he had heard about them and demanded to know how large they were. I had visited the big trees many times since that first memorable trip with my brother Billy and had even measured some of them myself. I told him their exact dimensions. Since he had never seen a tree larger than an elm, he called me a liar. Like any true Californian, I promptly showed my resentment by thrashing him. Immediately after this, and before we had time to dust ourselves off, class was reassembled. I, the newcomer, was promptly reprimanded by the headmaster and expelled.

It is not difficult to imagine my humiliation. I walked the old Green for hours, not knowing what to do and afraid to write home of my disgrace. Finally, I decided to see Professor William P. Trowbridge, an old army friend of my father's who at this time was on the Yale faculty. After listening attentively and in silence to my story, he asked me whether I was positive I had done nothing to Jackson before he called me a liar. I assured him I was guiltless on that count. Professor Trowbridge then asked, "What would your father have done if you had not fought young Jackson because of the insult?"

"He wouldn't have liked it," I replied ingenuously.

Greatly to my relief, Professor Trowbridge not only agreed with me that I could not have acted differently but even went with me to the principal of the school, "Buck" Johnson, to whom he explained the situation. I was reinstated, but from then on the mere words, "big trees," could always be invoked as a *casus belli*. Nevertheless, I managed to keep my enthusiasm for my native state under such restraint that it never again got me into serious trouble at school.

Several of my college friends prepared at the old Hopkins Grammar School and one of the closest of them was Arthur Twining Hadley,

36 The Autobiography of John Hays Hammond

later president of Yale. After graduating from Yale, we saw much of each other in Germany while he was studying at Berlin and I at Freiberg. Although often separated by thousands of miles, our friendship remained unbroken until his death in 1930.

Hadley was a man of extraordinary intellectual attainments and great versatility of mind. No one who knew him could forget his ready wit and his phenomenal stock of stories, gay and serious.

His memory was prodigious. He could quote pages verbatim from innumerable books. Facts of all sorts could be drawn at will from the storehouse of his mind. He knew, it seemed, every Yale graduate, and his ability to place a man, and remember his name and some especial characteristic or undergraduate attainment, added greatly to his popularity. Occasionally this memory proved embarrassing for others. Once, glancing over the pages of the *Yale Literary Magazine*, he saw an article on China. He went to his library, pulled down a book and demonstrated that much of the article was plagiarized. It was practically impossible to trick him in an argument. The wide knowledge he could bring to bear on any point made the less skillful man hesitant to enter into a debate.

Yet he was intellectually generous and always ready to listen to the other man's opinions. Unlike many minds capable of absorbing unlimited numbers of facts, he had the ability to relate and use them, he was imaginative as well as objective. Although he was one of our foremost economists, a director of railroads, and consulted by the great business men of the country, he was appreciative of literature and to the day of his death could read Latin and Greek as well as he could read English.

In spite of his memory, he was absent-minded; while he could recognize a man he had not seen for years, he was capable of passing his own wife on the street without recognizing her if he was deeply gripped in thought. In appearance he was quixotic and aware of the fact. His gestures were awkward, his body nervous. His voice was hesitant, strange, and often came to the ear as though from some throaty struggle. Yet once the listener had succumbed to the charm of the man, this was forgotten and, in spite of every handicap on the platform, generations of Yale graduates will testify that he was one of the greatest orators they have ever heard.

The Hadley home was always filled with undergraduates, mingling freely with great visitors from all over the world. Their Sunday midday dinners were famous and I have often sat at table there with bishops, politicians, undergraduates, athletes, ambitious young writers, and scholars. To these Mrs. Hadley added her amazing genius as a hostess. Adept at drawing her husband out and quite capable of silencing him if she thought he was running away with the party, she balanced the conversation and kept every guest a part of the scene. The closeness of President Hadley's contacts with undergraduates has perhaps not been generally realized. He often joined them in long walks over the Connecticut countryside, and where a mind or a personality interested him, he would talk hour on hour, stimulating, advising, always the friend and rarely the preceptor.

One incident that occurred in California, in 1901, illustrates Hadley's ability to make friends. I was spending the winter at Del Monte with my family and the Hadleys came to visit us for a few days before going to Los Angeles. I wanted them to stay a day longer than originally planned. Hadley said this would be impossible because he had to be in Los Angeles on a certain date to make connections with the train going east. I suggested his going over the coast road of the Southern Pacific, which, although completed from Del Monte south, was not yet open for traffic. He replied that he had already tried to make such an arrangement but without success.

J. A. Fillmore, the general manager of the railroad, was then in Monterey on his way south. I got in touch with him at once and asked whether he could take the Hadleys along on his private train. He promptly excused himself on the ground that, as he had already turned down so many applications, it would be impossible for him to make an exception in this case. Suspecting that what was really frightening him was the prospect of taking a college president in his private car, I reiterated my request, stressing the friendship we had formed when I was consulting engineer for the road in the eighties. So insistent was I that he finally agreed to take President and Mrs. Hadley with him.

38 The Autobiography of John Hays Hammond

When Fillmore returned, I asked him what sort of time he had had with Hadley. "Fill" was a diamond in the rough, who had worked his way up from the lowest position in the company to that of general manager, and he answered in his customary forceful way: "He's the damned best fellow I've met for a long time. We hit it off like that! As a matter of fact, he told me a lot of things about railroading I didn't know." This was indeed great praise for a practical railroad man to give one whose experience had been largely academic, even though he was the author of the best known text on railroads.

Every Yale man was proud of Hadley, and fond of repeating, among countless stories about him, his characterization of the Harvard man. Hadley had been one of the guests at a banquet of Harvard alumni when President Eliot wound up his speech by saying, "You can always tell a Harvard man."

Hadley said in his response: "I agree with Dr. Eliot perfectly. You can always tell a Harvard man, but you can't tell him much."

By autumn, 1873, I was ready for college, and entered Sheffield Scientific School of Yale University, known familiarly to all connected with it as "Sheff." At my father's insistence I had been given a good foundation in Latin and Greek, which would have qualified me to enter the academic class had I so desired. I was, indeed, as much interested in general and cultural subjects as in science. Geology, astronomy, botany, chemistry, physics, history, political economy, English, French, German, and, strangely enough, comparative philology were the main subjects in the Select Course in which I enrolled.

Mathematics was not stressed then as it is now. Even at Freiberg my stock of information on it was increased but little. That I should neglect a subject now considered such an integral part of engineering training may seem surprising, but my opinion has always been that too much emphasis is laid on higher mathematics for mining engineers.

Years later when I was serving on the staff at Sheffield as professor of mining—professor, indeed, for about twenty-four hours—I made this clear in my first talk to the students. I said: "Don't be dis-

couraged because you cannot pass your examination in mathematics. That is not so important in mining engineering, but it is important in other kinds of engineering."

Later in faculty meeting I had an argument over the mining curriculum with some of the leading professors. They were especially desirous of maintaining a high standard of mathematics in that department. From long practical experience I was convinced that certain other subjects were much more important to the mining engineer than higher mathematics, though I realized that for mechanical, electrical, and civil engineering such knowledge was indispensable. After a long discussion on this subject, Professor Augustus Dubois, an old friend and member of my Yale society, addressed me as Professor Hammond. "That is all right, to call me professor at a meeting like this," I said. "But as soon as I leave the meeting I am no longer professor."

"Why?" asked another faculty member.

"Because a professor in mining is looked on with high contempt and suspicion by the practical engineers of the country."

Professor Dubois, a great mathematician and an authority on mechanical engineering, asked me, as consulting engineer of the famous Camp Bird mine, what I would do in case the hoisting works should burn down. Would I not require a knowledge of mathematics to determine the tensile strength of materials? Otherwise how could I have the hoisting works rebuilt?

I answered promptly: "I'll tell you what I'd do under those circumstances. I'd call up one of the big manufacturers of mining machinery in Denver, and say, 'Our headgear has burned down; am sending you the blueprints of the headgear and wish you'd let me know by phone how long it will take you to erect another, and what the cost will be.'" I then went on: "The consulting engineer of a mining property has experts whose duty it is to work out such problems for him, while he devotes his time to the development of ore reserves, the metallurgical treatment of ores, or the administration of the company's business."

I then addressed the chair, demanding, "President Hadley, what is your opinion of the importance of mathematics in the education of a mining engineer?"

40 The Autobiography of John Hays Hammond

He replied: "I am not an engineer and cannot give any firsthand opinion, but I recall a conversation I had some years ago with one of the great railroad executives of the country. I asked him which made the better railroad man, one who was proficient in mathematics or one who was well equipped in the Greek language. Much to my surprise he answered, 'The one who is well equipped in Greek, because he forgets the Greek sooner.'"

Although my views did not prevail with the Sheffield faculty, I had better luck later at Harvard. When I was chairman of the Board of Visitors for the Harvard Scientific School, this same question of mathematics came up and I was backed up in my opinion by other members of the Board, which included such noted mining engineers as B. B. Thayer, Rudolph Agassiz, Hennen Jennings, and Charles Perrin.

In my own undergraduate days, the academic life was concentrated, the faculty was limited but the professors were widely recognized authorities in their particular subjects. Many of them had received offers to go to other colleges, but they preferred to remain at Yale. Our classes were not large, and we became intimately acquainted with our teachers. Not a few of them called us by our first names, even occasionally letting a "Tom" or a "Jack" slip out in the classroom. We were guests in their homes—we knew their wives. Their daughters were our friends.

Some of these professors were great scholars, but forbidding, like Lounsbury; some were unorthodox, like Brewer. But as I recall them, they—most of them—seem to have had force and individuality and to have been able to win our attention and admiration in one way or another and to inspire interest in their subjects which continued long after graduation.

Noah Porter was president of Yale at the time. He served in that office from 1871 to 1886. I had great admiration and, in common with other students, a real affection for him: this, in spite of a most unfortunate experience.

During one winter vacation some of us whose homes were far away remained at New Haven. One evening there was a "quiet" celebration in my room in Divinity Hall. This was a new building and students of Sheff were eager to room there. On this partic-

ular night several of us had been indulging, perhaps not wisely but too well, in a concoction at that time popularly known as "Tom and Jerry." Perhaps it still is. We realized that we were in Divinity Hall and in deference to such a saintly atmosphere restrained our normal desire to "roughhouse."

The janitor evidently was acutely aware of the dignity of the building and determined to preserve it. We found him listening at the keyhole, and thought it better for him to get a close view of the proceedings. I was commissioned to climb over the transom and to drop down on him and take him unawares. This I did.

The door was then opened by my friends and the janitor was taken into the room and subjected to what he characterized as "considerable indignity." He immediately reported the matter to President Porter, who dismissed us from the building. It was a serious matter with us as we had gone to great expense to establish ourselves comfortably for what we thought would be two years' occupation.

However, the kindly president did not expel us from college as he undoubtedly would have been justified in doing, and I have always felt grateful to him for his forbearance.

The teacher who influenced me most at Yale was Francis A. Walker. He had been a general in the Civil War on the northern side. He was professor of political economy and history. His poise, breadth of view, and even his temperament made him an ideal for me. He developed my interest in broad questions of public policy. I worked hard in his courses and I have never lost this interest.

On the question of the war, he was invariably fair to both sides, preferring to treat the subject from the constitutional rather than the political angle. He was equally impartial on the tariff question as it stood in the seventies. It was, however, his masterly presentation and analysis of the effects of various economic policies that made me a supporter of a protective tariff. In the opinion of H. H. Powers, a recent writer, Francis Walker was the first to point out that the United States, with internal free trade and the protective boundary of a tariff, was an example of what Adam Smith meant by free trade.

Although geology was one of my subjects at Yale, chance first opened to my mind its fascinating possibilities. On one of my vaca-

tion trips home, a locomotive accident in Wyoming caused a delay of several hours. It so happened that Professor Joseph Leidy, geologist and paleontologist of the University of Pennsylvania, was on the train. He asked whether I would like to accompany him to a geological deposit of great interest near the point at which the train had stopped. Naturally, I accepted eagerly. He explained to me how the ages of geological formations are determined by the presence of certain fossils, and during the last two days of our journey continued his instructions in so stirring a fashion that geology became one of my favorite studies.

Also I became well acquainted with Professor James Dwight Dana, then the world's leading geologist and mineralogist. In my junior year, when John Tyndall, the English physicist, was his guest, Professor Dana made up a party to visit East Rock, a Gibraltar-like formation of trap rock near New Haven. Professor Tyndall, who prided himself on his renown as an Alpinist, attempted to climb the face of the rock, which rises precipitously two hundred feet from its base. After failing to accomplish the impossible ascent, he inquired how the inscription YALE '76, painted in letters so large as to be visible for a mile or more, could have been placed there.

I had been partially responsible for the inscription, so I explained to Professor Tyndall that a party of us had drawn lots to see who should be lowered by a rope from the top of the cliff to do the lettering, and the honor had fallen to me. After I had painted assiduously for an hour, one of the fellows went down to inspect progress. He reported that the painting was so bad he could not make out whether the letters spelled HELL or YALE, whereupon it was unanimously voted that I should be recalled. I made an ineffectual but not sincere protest. My successor apparently had more artistic ability, for he was allowed to finish, and the letters remained there for many years as a challenge to other classes. In his lecture that evening, Tyndall referred to the East Rock episode and turned it into a graceful compliment to Yale by saying that, in his effort to reach the heights, Yale was ever before him beckoning him on.

My last meeting with Professor Dana occurred in 1883 when he was visiting California. As I was particularly anxious to discuss with

him certain geological questions connected with the genesis of ore deposits, I boarded the train some hours before it reached San Francisco and continued the journey with him. I would have considered his opinion *ex cathedra* but, like all great men, Professor Dana was extremely modest and told me that in an expression of opinion on that subject he would defer to me who had specialized in its study. He talked most interestingly of his first passage through the Sacramento Valley in 1841 on his way to join the Wilkes Expedition at the Pacific Ocean. Even at that early date, seven years before Marshall's discovery, Dana was on record as having expressed his belief in the existence of gold deposits in that part of California.

Thomas R. Lounsbury was another of the great teachers of his time. His profound scholarship, combined with keen literary appreciation, made him unusually successful in introducing generations of students to the varied excellencies of English and American literature. My deep and abiding love of Shakespeare is entirely due to him although I never stood in his good graces. "Tommy" was not a supporter of college athletics. All students who, like myself, had athletic ambitions were put into one section of the room, and were invariably treated as mentally inferior. Doubly handicapped by being an athlete and also slightly deaf, I fared badly.

I also fell under Lounsbury's displeasure for insisting on graduating with my class, in spite of having lost ten weeks through an injury received in the gymnasium. I managed to pass my examination with credit, but had no compliments from Tommy Lounsbury. I well remember his meeting James L. Houghteling and me the day after graduation. Addressing Jim, he said warmly, "Mr. Houghteling, I wish you every success in life; I predict great things for you." Then turning to me, he uttered gruffly: "Good day, Mr. Hammond." I never quite forgave him for the slight, although in later years he was cordial enough.

William Dwight Whitney was professor of German. He was brother of Josiah D. Whitney, Harvard professor of geology. Whitney certainly qualified for his position: he had won a competitive examination test for the best grammar published in German, and this grammar had been adopted and used by the schools of Berlin.

44 The Autobiography of John Hays Hammond

Professor Whitney also gave us courses in comparative philology, in which subject he ranked among the greatest authorities of his time. His controversy with Professor Max Müller, of Oxford, as to the origin of speech created wide comment among those interested in the subject.

Later, when I was a student in Germany, I met Professor Whitney in Dresden and enjoyed showing him the sights of that pleasant city, and particularly the art collections. One day we dropped in at a bierkeller for luncheon and Professor Whitney took the menu and studied it carefully. Now, I thought, I can safely leave the ordering to him and shall not have to use my stumbling German on the waiter. Much to Whitney's chagrin, however, and to my ill-concealed amusement, the waiter blandly but firmly refused to understand a word of the orders poured out to him. By employing the sign language and a few phrases in the vernacular, I made our wants known, and I did not lose the opportunity to impress solemnly upon my former professor the necessity for "getting close to the people" in order to learn their language.

All of our professors were not giants of intellect, of course, nor were they all popular. There were the "tough" ones along with the "easy" ones.

For example, there was a mathematics instructor named Wells.

At the end of my freshman year the class had its annual supper at Savin Rock, on the outskirts of New Haven, a resort which still lures the Yale undergraduate with shore dinners, and less conventional pleasures. We had heard that Wells was to leave Yale, which was a great relief as he was most difficult to satisfy and, moreover, was unpopular personally with the class. So, when I was asked to propose a toast at the supper, I said enthusiastically, "All's well that ends Wells."

The unfortunate aftermath was that Mr. Wells changed his mind and decided to remain at Yale. Naturally my standing with him was not improved when he heard of the toast, as he inevitably did.

And there were the "soft," or "cinch," courses in those days. I dare say there still are. Among our most pleasantly disposed friends were John H. Niemeyer, professor of drawing, and William H.

Brewer, whose actual title I do not remember but who struck me as being professor of "general information."

Brewer we admired because of his really broad knowledge on many subjects, but we were especially delighted by his funny stories. He told the same ones year after year, and we naturally encouraged him even though they were chestnuts. In his younger days he had been one of two geologists to examine our western country. In fact, Mount Brewer is named for him. He had many interesting tales to tell about his experiences. One of his favorites was about a soldier who had been stationed for many years at Yuma, Arizona, one of the hottest spots on earth. The soldier died. Later a letter was received by his friends at the post asking them to express him his blankets to hell.

Our class heard this story from Brewer for two years and when, in our senior year, he started telling it again, it was too much for us and we raised our fingers to indicate that this was the third time. Brewer saw the joke, laughed, and said: "Well, my young friends, it's a good story anyhow and this will be the last year you will hear it, but I am going to keep it up on succeeding classes."

Professor Brewer remained a favorite for many years. Even when he was seventy or over, he rode an old bicycle around the streets of New Haven. Years later when I was in Denver, he stopped off at the Denver Country Club and I gave him a big dinner. He loved it. It gave him a chance to tell his favorite yarn once more.

I am not only the world's worst freehand drawer, I cannot even draw with a ruler. I was particularly grateful to the liberality of Niemeyer who passed me in freehand drawing. The class had been told to submit a drawing of an eye and an ear. My exhibit was the most amazing one shown; in fact, when I took it to Niemeyer he said, "Mr. Hammond, you have failed to indicate which is the eye and which is the ear. Would you mind marking each one so that I can distinguish between them?" It was fortunate for me that he had a sense of humor.

A few years ago Rube Goldberg, who is a Californian, wrote an article for the *Saturday Evening Post* in which he told how he became an artist. He said that his father was averse to his studying drawing as he did not believe in it. Goldberg said, "Father, how

46 The Autobiography of John Hays Hammond

would you like me to become an engineer like John Hays Hammond?" His father said, "That would suit me fine." Goldberg went to the University of California and registered in engineering, but instead of studying engineering he studied drawing—at least so he wrote me years afterwards.

I said to him, "How did you ever think you could learn drawing from engineering?" and told him the story of my freehand drawing in Niemeyer's class. People have an idea that an engineer should be a great drawer and that business men should be great mathematicians, but fortunately for some of them, this is not always so.

The smaller size of the college in my time naturally influenced its social and athletic life, as well as its academic studies. I understand that with the development of the new College Plan, splitting into smaller social groups, there is a return of some of the delightful intimacy that we enjoyed, and since men from "Academic" and "Sheff" are now rooming under the same roofs a greater unity is being achieved. We knew intimately almost everyone in both schools, including the faculties and the heads of the colleges.

In the years of contact with various schools and colleges after my graduation from Yale, it seemed to me that this intimacy was vanishing from American education. I have always thought that as much if not more can be learned through friendly conversation with men of intelligence than from any library in the world. President Hopkins, of Amherst, well defined this idea when he said, "The ideal college consists of a log of wood with an instructor at one end and a student at the other." It is encouraging to see that in many colleges other than Harvard and Yale—where Mr. E. S. Harkness by his gifts has made the new housing program possible—the small seminar course, often conducted in the professor's home or over a table in the most informal manner, is bringing back this free exchange of ideas between the great teachers and their students. Too much cannot be done in this direction.

Partly the problem of formality has arisen through the mushroom growth of our colleges. Simultaneously another difficulty occurs. Entirely too many boys go to college who never ought to be within the gates. They have no idea of what they want. Many are

seeking social prestige, fame in athletics, or the benefits they feel college contacts will bring them later in business life. During my long experience in employing graduates of various colleges, English boys in South Africa and Americans here, I have found them often ridiculously unable to adjust themselves to practical circumstances and utterly unprepared to undertake what seems to me to be their actual education. The source of this unfitness lies in the trivial, I believe, aims they harbored in their academic careers.

I have found that students of the technical schools take their education more seriously and are not so disposed to attend recitations without attention. Requirements for admission and graduation in professional schools—engineering, law, medicine, and so on—are nearly always much stiffer than in other institutions and the tuition is much more costly.

But my opinion is that even in technical schools a certain amount of time should be given to a study of the humanities. I have never been particularly interested in the controversies over requirements of Latin and Greek in a curriculum and I do not think that one should concentrate on a study of either of them. But I have never regretted the time I devoted to these subjects. In Russia I was amused to find that my college Greek—alas! largely forgotten—proved of practical value since Greek characters are used in the Russian language. Moreover, the ability to trace the meaning of unfamiliar words through their Latin or Greek roots has been a decided pleasure to me and has stimulated my interest in all kinds of reading. To be dogmatic, the broader one lays the foundation, the higher one can raise the monument to achievement. Broad culture not only enables one to understand more thoroughly the miner or the Pullman porter, but also to enjoy the conversation of wise, witty, well-educated people and to know better the great minds of the past through their works.

By far the most important part of a college education is the interest created by the professors in the various subjects. A professor or a lecturer recognized nationally or internationally as an authority on his subject can command attention and effectively supplement the work of the young instructor. I can think of no more worthy philanthropy, no more urgent and pleasurable duty for the man of standing and

48 The Autobiography of John Hays Hammond

wide experience than to pass on his knowledge to the young. Lecturing in colleges is the most practical means of accomplishing this.

Today, many of the collegiate tourist lecturers have axes to grind. All shades of opinion could be expressed if outstanding financiers, executives, politicians, medical and other professional men were invited and demanded by the colleges. This seems to me a healthy antidote for so-called academic license—a matter which college trustees might well include among their responsibilities.

No one attitude should continually and unchallenged hold the floor in any college course. A radically-minded professor might well conduct a course in history or economics, but only so long as other attitudes may simultaneously be expressed. Particularly in the teaching of such controversial subjects as economics, the perspective in the presentation should be as broad as possible.

Few facts are sure, and all attitudes are debatable. And controversy soundly launched is the best possible means of teaching one to think. Beyond the actual knowledge college can give a man, if it can expose him thoroughly to many types of men and to many casts of belief, if it can stimulate and accelerate his processes of thought, it has been of inestimable value to him. It has given him the equipment with which to go out into life and learn.

I had been at the Hopkins Grammar School with many of my Yale classmates and may perhaps be allowed to boast that, with the exception of Ned Ryerson, I had passed the highest entrance examination. I had also been on several of the athletic teams, so that I was assured of election to a club. I heard that the Chicago fellows had gone to Sigma Delta Chi, and as I thought it would be a fine thing to know some Midwesterners well, I went along with them. Later, because of the monastic character of the life at the club building where I lived during my senior year, I suggested the name by which this fraternity is now known: "The Cloister."

It was then at 36 Elm Street, an old brownstone house with a long flight of steps going from the sidewalk to the door. One day I hired an old plug and started riding him up the steps, which were crowded with the boys. They scattered in all directions. I had no difficulty in getting the horse up the steps, but when I started to back him

down the trouble began. I finally had to slide off him! When the boys accused me of becoming an eastern tenderfoot, I replied that horses were "more versatile in the West."

The various clubs ate at different restaurants, or at least had separate dining rooms as was the case at the place on Orange Street where we ate. This was the scene of the provocation of the fight made famous by William Howard Taft in an article he wrote for one of the Yale magazines.

One day when I was calling on President Roosevelt, he said, "I don't think I should have a man like you here at the White House." I asked "Why?" supposing he referred to my connection with the Jameson Raid.

"Taft told me this morning about a fight which you refereed at Yale. Of course, I take no stock in fights. What was it?"

I repeated the story to him. The fight occurred in my senior year between James L. Houghteling and George Creighton Webb. Webb was president of the Yale Athletic Association, of which I was secretary; Houghteling was editor of one of the college papers.

Houghteling had officially commented unfavorably on the activities of the association. I upbraided him for this, and jokingly made the statement that Webb had threatened to whip the entire editorial staff, if provoked by further unfair criticisms. Houghteling said, "That is a lie! Webb never made such a threat."

Unfortunately, one of Webb's brothers in an adjoining room overheard Houghteling's remark and went immediately to report it to Creighton. Creighton then threatened to horsewhip Houghteling publicly. Finally, Chester Dawes and Walker Blaine, who greatly enjoyed a little diversion in the way of a fight, prevailed upon Webb to accompany them to my room in the Cloister, where Houghteling also roomed. I heard of the plan a few hours before the appearance of Webb, with his two seconds. As I had been a faithful pupil of Lett Dole, I was able to give Houghteling a few points in boxing, but he did not seem to avail himself of these lessons when the fight actually took place. I was induced to act as referee. Both opponents were large men, but had no knowledge whatever of boxing. After a half-hour during which no damage was done, Webb, some-

50 The Autobiography of John Hays Hammond

what out of breath, said, "Mr. Houghteling, I am here to give you satisfaction."

"On the contrary, Webb," I said, "he is here to give you satisfaction."

Then Webb said, "We are here to fight according to Marquis of Queensberry rules."

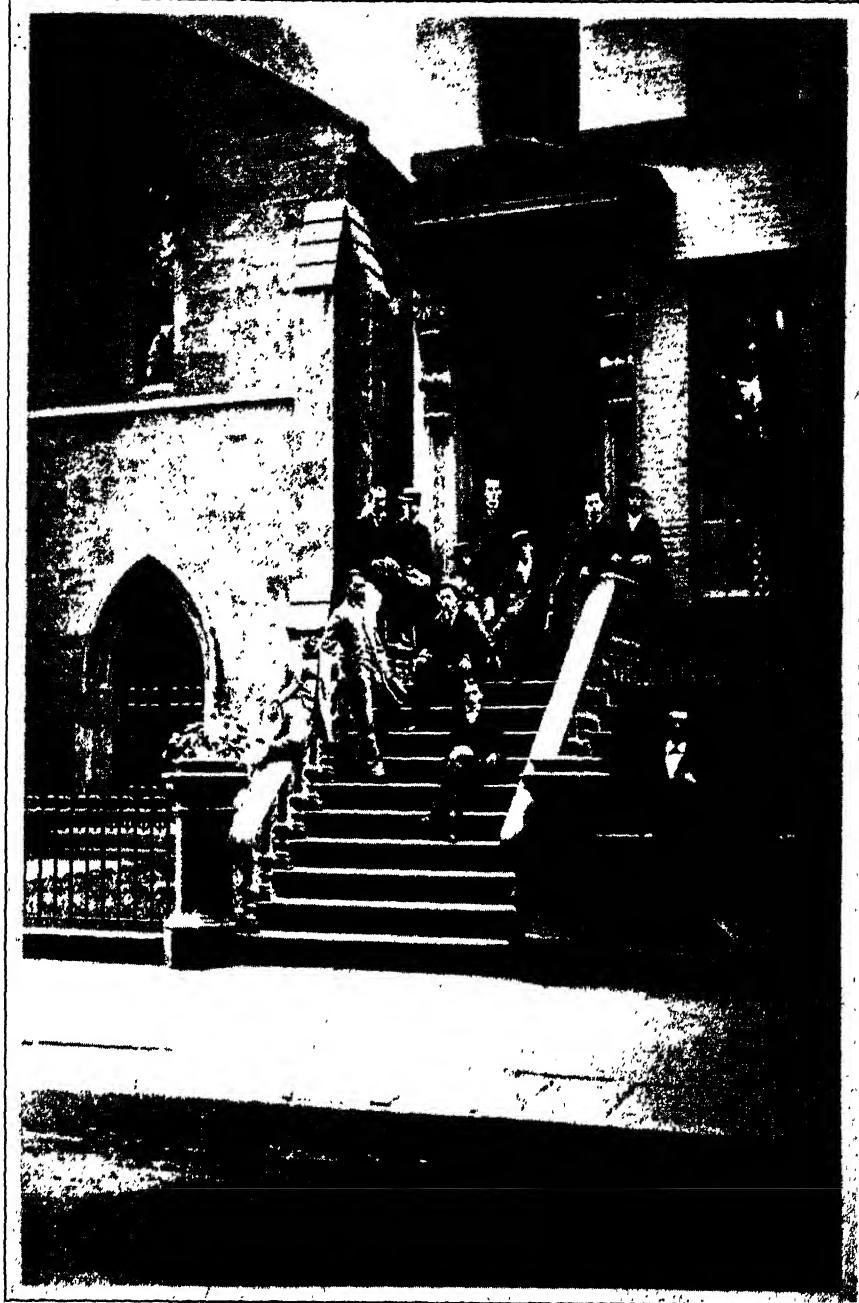
"No," I told him, "you are here to fight according to my rules, and if you don't finish soon I will put you both out as I have to hurry to a recitation. I haven't many cuts left."

In the end both had black eyes, Houghteling did not apologize, and they had to go into hiding until they were more presentable, as it was of supreme importance to keep the faculty from discovering this disgraceful row.

President Roosevelt laughed and said, "I agree with you; that is the worst boxing I ever heard of. As a matter of fact, they should both have been expelled for such a bad exhibition."

Houghteling became one of the leaders of the younger generation of businessmen in Chicago. As to Webb's valor there can be no question, since he later distinguished himself as a staff officer in the Spanish-American War. He received letters of commendation from many generals and one in particular from General Joseph Wheeler, who said Webb was one of the bravest men he had ever known. During one of the battles before Santiago, Webb went about his duties in apparent unconcern although the enemy's bullets were flying all about him. Wheeler said this was the most courageous act it had ever been his pleasure to witness.

It must not be assumed that all our time at Yale was spent in fighting. Nevertheless, a recent Yale football victory over Harvard reminded me of how I quite accidentally started my first revolution. The Town and Gown riots are famous at New Haven; there have been many of them through the years. The relations between the students and the townspeople are not always cordial, and often break into fisticuffs around the time of the big games. In 1875, for the first time in many years we beat Harvard at baseball in New Haven, and we beat them with a disabled team; several of our men were not in condition as the result of a hard game played the week before.



THE STEPS OF "THE CLOISTER"—YALE 1876



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Photographed by H. Buehler, Springfield, Mass.

YALE UNIVERSITY CREW. Champions of 1873.

Henry Meyer.

'73

Jeremiah Day.

'73

Willis F. McCook.

'73

Julian Kennedy.

'73

S. S. S.

Herbert G. Fowler. *Bur.*

'74

R. J. Cook.

'76

Stroke Cpt.

Yale celebrated the victory by building a big bonfire on the old campus. This was not only against the rule of the college, but also against the law of the town. I had nothing do with the bonfire part of it, as I had been at a dance and had gone to take the Mitchell girls home.

On my way back to the Cloister I passed the campus. There was a great commotion and out of curiosity I went across the street to see what was happening. There I saw an officer—"a peeler," we called them—reading the riot act to a lot of the boys.

I remembered this peeler very well; I had had a little disagreement with him after our freshman dinner. I reached the campus just in time to hear him say, "Did some one of you men call me a liar?"

No one replied, so I stepped up to him and said: "Yes, I called you a liar. You *are* a liar."

At that he grabbed me. I hit him on the chin and he keeled over.

The policemen patrolling that section then came running and immediately there was a riot. I was grabbed at each arm by a policeman. They began pushing me through the crowd, waving their pistols.

I said, "You damn fools, put those guns up, someone will get shot." By the time they got me across the Green my new frock coat was badly torn. A big crowd of students followed us, and soon the cry "Yale! Yale!" went up. Just as we got near the New Haven jail Durbin Horne, a quiet kind of fellow, came up and asked, "Jack, what is happening?"

I said, "These fellows have arrested me."

Horne said, "I will go bail for you." This was amazing, as Durb was close with his money.

He protested to the officers; they paid no attention, but opened the door to the back cell of the jail and shoved Durb in with me. He argued loudly, but it made no difference. Within an hour the whole jail was full of Yale men. It was hard luck for them that I had come along the campus just when I did.

Along towards midnight college professors and many of the alumni who were in town for the game came to the jail. Some of

52 The Autobiography of John Hays Hammond

them were among the best lawyers in New York. They came to use their influence for us.

The following morning we were all haled into court and fined \$8.29. I have never known to this day just how the judge arrived at the twenty-nine cents.

Our social life in the seventies was informal, as a rule, interesting, and intellectually stimulating.

It was rare for students to leave New Haven during term time; the week-end habit came with the advent of the automobile. The atmosphere was convivial, and it is decidedly a moot question whether at that time there was more or less drinking than there is at present. According to my recollection, hard liquor was rarely used, the chief indulgence being in beer and ale. Excessive drinking was invariably frowned upon by college sentiment, and it was unheard of for students under the influence of liquor to be allowed to participate in social functions at which ladies were present.

When there were no ladies in the group we went to Moriarty's. Moriarty and his wife were Welsh, I think, although the name sounds Irish enough. They were both huge in size. The old gentleman liked to sit around and tell us stories, while we drank beer and ate Welsh rabbits and grilled sardines. It was a restaurant then but, of course, has since become a club and "Mory's" is still known for its food and ale. In our day the famous convivial "green cup," fortunately, had not been devised.

Most of the girls with whom we talked and walked and danced were the daughters of professors and of the gentler citizens of "The Town"—among them Miss Delia Lyman, the Misses Trowbridge, Miss Sargent, and the Mitchell girls, one of whom later married Ned Ryerson. We had a small dancing club, some sixteen couples. On Saturday nights we had dances that we called "Germans." These were held at the girls' homes. On such an occasion the young lady who was hostess did the cooking herself, helped by the other girls. It was entertainment in the simplest and most gracious fashion.

Among the houses we visited, one of the most interesting was the Mitchell home at Edgewood. Donald Grant Mitchell, who wrote *Reveries of a Bachelor* under the nom de plume of Ik Marvel, was

then enormously popular and perhaps lent a special aura of romance to the household. Mr. Mitchell was simple and genial. He dressed informally and liked to go out and putter in his garden in the most unconventional old clothes. One of my classmates once went to the house on horseback to call on one of the daughters. Not recognizing Mr. Mitchell in his gardening clothes, the boy threw the reins to him and asked him to hold the horse. Mitchell did this and my friend, when he left, handed him a quarter. The famous writer kept his silence—and the quarter.

The boys of the club were so intimate with the families of the girls that the parents would allow us to escort them to any of the dances or other entertainments.

Of course, the proms were held at the university and were slightly more formal, although we danced mostly waltzes and square dances. One of the strangest experiences I ever had at a college dance was at a junior prom.

Among my college friends was Elijah Thien Foh Laisun, a Chinese in the class below me. Although we knew each other fairly well, I was somewhat taken aback when Laisun asked if I would be kind enough to help escort his sisters, then studying at a Connecticut private school, to the prom. Naturally, I agreed to do what I could to entertain them but inwardly I felt considerable embarrassment—such is the superself-consciousness of a boy of that age—in making myself responsible for them. For moral support I inveigled another chap into standing by me.

When the sisters arrived, we were in thorough consternation. There was no doubt that they were pretty, but, dressed as they were in colorful Chinese costume of embroidered slippers and jackets, trousers, headdresses, and all, it was inevitable for them to be the cynosure of all student eyes. Obviously my friends were enjoying my all-too-apparent discomfiture.

As soon as the dancing began, the young ladies asked to be excused for a few minutes. After a truly uncomfortable wait, they reappeared in American evening dresses. As the strains of a beautiful waltz filled the air, my friend and I bowed dutifully to our partners and swung into the dance. I rather fancied myself as a waltzer. At the first step my spirits rose with a bound, and before we had circled

54 The Autobiography of John Hays Hammond

the room it was obvious to all bystanders that the sisters were perfect dancers. In no time they were besieged. Joyfully I claimed a prior right, and it was only with much reluctance that I relinquished my partners for an occasional dance with someone else.

The Chinese girls had been thoroughly posted in the type of conversation that appealed to college boys. They knew the names of the captains of the baseball nine, the crew, and the football team. In fact, they were so well informed about athletics and school activities that it is little wonder they were popular.

Laisun himself came to Freiberg to study mining the year after I went there. He had graduated from Yale with high honors and was, in addition, the class poet. At Freiberg also he was an excellent student and, after his graduation, passed on to a distinguished career in China. I received an occasional letter from him for a few years; I then lost all track of him.

More than fifty years later, Dr. Wu, son of an old friend, Wu Ting-Fang, was minister to Washington as his father had been before him. I once asked him whether by any remote possibility he had ever heard of Laisun. He smiled. "He was my first cousin. He died just a few years ago." This was indeed a long shot out of four hundred million Chinese.

College life for me, then, was a pleasant mélange of books, professors, comradeships, social diversions, and athletics. At Hopkins Grammar School I had been captain of the baseball team and had given Walter Camp, three classes behind me, his first education in baseball. I continued athletics at Yale, spending some time in track events and playing as captain on the Sheff football and baseball teams. The effort involved was not so great in those days as it is today when athletics are overemphasized and commercialized. I had much free time for other activities.

The rowing situation was an interesting one in my day, and the banner period of Yale rowing commenced in the latter part of my college years. The races were six-oar races: there was no coxswain; the steering was done by the bow oar. Yale had consistently lost up to '73.

The '72 Yale crew was one of the worst I have ever seen and Yale was badly beaten. Bob Cook, a freshman, rowed No. 3 in that race.

After this defeat, President Porter was persuaded to grant Cook a three months' leave of absence, so that he could go to England and study the English stroke at Oxford and Cambridge.

Bob Cook is the greatest figure in the history of Yale rowing. His father was a prosperous farmer in Fayette, Pennsylvania, and strenuously opposed the idea of his coming to Yale. The boy was very poor, since the only financial assistance he had was what his mother could manage to give him.

The expenses of the trip to England were made up by contributions given by Bob's friends. I was one of those friends, though still at Hopkins Grammar School, and was glad to contribute in a small way. Many helped, even to the extent of pawning their personal belongings or raising loans on the furniture in their rooms.

When Bob returned from England in April, 1873, he was made captain of the Yale crew and retained this position during '74, '75, and '76. Since he had overstayed his leave, he was dropped from the class of '75 and joined '76, as he said, "in order to promote Yale's success in rowing."

At first Bob had much difficulty in getting Yale to adopt the new stroke he had learned in England. He did all the coaching himself, but there was so much opposition to the stroke that the freshman crew sent outside and hired a professional coach. However, Yale varsity crew won in '73.

The '74 race, held at Saratoga, will never be forgotten by Yale men of that time. The distance was three miles. Yale had perfected the Cook stroke by then, and Yale men were confident of victory. When the crews reached the two-mile mark it was signaled to the large crowd at the finishing line that Yale was ahead. Under ordinary circumstances this would mean that the race was a walkover for Yale, as the advantage of the slower Yale stroke left the crew comparatively fresh for the finishing spurt. After several minutes the crews reached the finishing line—and no Yale boat in sight. It was not until some time afterwards that Yale, with a crippled crew, arrived. This is the story I have often heard from my close friend George L. Brownell ("Browny"), who rowed bow on the Yale crew.

56 The Autobiography of John Hays Hammond

He said that Yale was rowing the Cook stroke and taking things easy, and was leading at the end of the second mile. The Harvard boat came close alongside and Bob Cook yelled tauntingly to Richard Dana, captain of the Harvard crew, "You better come up to Yale and learn how to row."

As the rudder of the Yale boat passed, the bow oarsman of Harvard struck it with his oar; this broke the rudder and caused the Yale boat to veer sharply, snapping Brownell's oar and putting Yale out of the race. Cook then called to Bob Cornell, captain of Columbia, "Go ahead and win the race." Columbia did.

In those days, as stated before, steering was done by the bow oar. It is difficult to believe that the damage was done deliberately by the Harvard oarsman, but the majority of Yale men believed that to be the case. There is no question but that Yale would have been several lengths ahead if the accident had not occurred. Yale men were convinced of the superiority of the Cook stroke. Indeed, it would seem the Harvard men shared that opinion. In spite of every effort made by the Yale students and alumni at Saratoga to have the race rowed again, even offering a large purse to be donated to some charity by the winner, Harvard refused.

Yale lost to Harvard in '75, and as I recollect, out of eight or ten crews, came in near the last of the procession. But in '76 Yale won again, and in that same year Cook stroked the four-oared crew which won the International Race at the Centennial Exposition in Philadelphia.

Harvard won from Yale in '78 and '79 (the Yale crews were not one hundred per cent Cook crews); then Yale won in '80 and '81. But there was a rebellion against the English stroke, and in '82 and '83 Yale rowed what was known as the donkey engine stroke, losing both races.

Cook coached in '84 and Yale won. Then there was another rebellion against the English stroke, led by Louis Hull who coached the '85 crew, which lost.

In '86 Cook came back into power and won every race against Harvard up to and including '98, with the exception of '91. There was no race in '96; Yale went to Henley that year.

Briefly, Bob Cook coached fourteen crews that won from Harvard. During the time he coached, Yale was beaten by Harvard only in '75, '78, '79, and '91. Today all American colleges row what is practically the Cook stroke. The beauty of this stroke is that in a four-mile race the men conserve their strength, rowing only about 32 against the American stroke of 40 or more per minute.

My last year at college, 1876, I saw the Yale crew in an eight-oar race at Springfield. On this race I won \$25 from my Harvard friend, Ogden Mills, of California. I more than compensated him in later years, however, by making for him many millions of dollars in mining investments.

I have kept up my interest in Yale rowing and have shown my confidence in my Alma Mater by having a small bet on her every year for over fifty years. The net result has been in my favor. Each year for many years I had a bet of \$25 with Jack Follensby, a friend from Harvard, and we kept this up even after I went to Africa. Today Samuel Winslow, another Harvard friend, who was one of her crack oarsmen, and I bet a box of cigars on every Yale-Harvard race.

Of all the sports I enjoyed at Yale, boxing probably proved the most useful knowledge for later years. Bill and Lett Dole taught boxing for several years. Bill, the elder, was at times rather brutal and in general rougher than we thought necessary. We planned to play a practical joke on him. Walker Blaine, Chester Dawes, and a few more of us arranged a boxing match for Bill Dole. We secured a professional from New York, hired a hall, and sold tickets. Full of pleasurable anticipation, we conspirators expected to see Dole soundly beaten, but much to our amazement, he gave the professional a good licking. The joke was on us.

Lett Dole, later head of the athletic department at St. Paul's School, was my teacher. He was about my size. The skill I acquired from him stood me in good stead on at least two occasions.

The first affair took place in Nevada. I had been sent to examine a mine, which I soon began to suspect had been salted. Having made an agreement with the owners that I was to have complete charge during the examination, I politely requested the assayer to absent himself while the tests were being made. I then secured

58 The Autobiography of John Hays Hammond

another assayer and put up a notice on the door of the office, No ONE ALLOWED. I explained to the company assayer that this was no reflection on him, but that, since I alone was responsible for the result of the examination, I must take unusual precautions. He apparently viewed the situation lightly. The next morning, however, I found him waiting at the door, and insisting on going into the assay office.

"You can't go in there," I said.

"The hell I can't!" he retorted.

There was only one way to settle this argument, so we repaired to the back yard. He was considerably taller than I. The patrons of the saloon next door emerged between drinks to watch the fight. They were opposed to engineers as a class, though they had nothing against me personally since they had never seen me before. In the opening round, the odds were heavily in favor of my opponent, who, I soon discovered, knew nothing about boxing. He tried to foul me several times, at which the crowd, with its inherent instinct for fair play, protested. The cheers for him and the boos for me began to shift. As he kept fouling and I kept dodging, there were cries of "Give the little fellow a fair show!" Finally he gave me an opening and I knocked him out.

The other affair also was in the line of duty, but this time in South Africa. In company with a mechanical engineer named Connor, I was driving a horse and buggy to a mine near Johannesburg where I was to make an examination. On the way, I met a heavy-set drunken fellow, also with a horse and buggy. After his erratic course had almost forced me into a ditch, I shouted: "What the hell are you doing?" He reined in his horse, handed the lines to his Kaffir boy, jumped out, and came towards me. I was out of my buggy almost as quickly as he, and met him on the road. Without preliminaries, he closed with me, and with the first blow cut my nose so deeply that I still carry the scar. Connor rushed in to separate us but, so hot was the combat, he was forced out again at once with two black eyes.

My opponent was a bruiser but, because of my thorough training from Dole and, perhaps, because of my tremendous rage, I was able

to get in several telling blows. I gave him a black eye for my cut nose, and finally forced him to cry quits.

My face was covered with blood when I reached the house of the manager, Victor Clement. I was busily describing to Mrs. Clement how I had been in an accident, and apparently was getting away with my story, when her husband came in. Victor said he had seen the other fellow.

It seems I had had the temerity to engage in personal combat with Coffee Jacobs, an English Jew and professional prize fighter. When I met him, he was on his way to a wedding and had begun to celebrate in advance. After his fight with me, he met Clement and asked him whether he was presentable enough to attend the wedding. Clement told him to go ahead, his face was really much improved. I had had a lucky escape; if Jacobs had not been drinking, he would undoubtedly have beaten me badly.

The story did not get into the newspapers, although it spread far and wide. A few weeks later, some hundreds of miles away in Rhodesia, Dr. Jameson asked me how my nose had become so damaged. Before I could begin to mumble, "Well, you see, it was this way . . . "

Jameson laughed and said, "You needn't explain, I know all about it."

Curiously enough, the fight made Coffee Jacobs a good friend to me. He kept a bakery in Pretoria, and when I was in prison there after the Jameson Raid, he regularly took bread to my wife to be relayed to me. It was a service that was greatly appreciated. Poor Jacobs did not get off so well with the next Yankee he crossed. About a year after the Raid, while on another spree, he started an argument with an American in a saloon, whereupon the latter in self-defense shot him dead. In contrast to the prevalence of shooting affrays in our West, this and the murder of Woolf Joel are the only two cases of the kind I encountered during my years in South Africa.

In 1899, on one of my many business trips to South Africa, I heard that a certain von Veltheim, a bad character, had threatened the life of Woolf Joel, the nephew of Barney Barnato. I urged Joel to return to London, but he insisted that business would keep him in Johannesburg for a time. At any rate, he said he did not fear von Velt-

heim's threats as he had Harold Strange for bodyguard. I knew Strange and was not impressed with his ability to protect Joel.

I looked up Strange at once and found that he was not only unaccustomed to guns, but was extremely clumsy in handling his pistol. I warned him that von Veltheim had a reputation as a gunman and that in a crisis, if he could beat von Veltheim on the draw, he should shoot to kill. Like most tenderfeet, Strange was well satisfied with himself and said he was not afraid of von Veltheim.

The next day von Veltheim came to Joel's office and demanded a large sum of money as blackmail. Joel refused. Strange started to draw his pistol, but von Veltheim drew more quickly and killed Joel. At the trial he pleaded self-defense and was acquitted.

During my last year at Yale—I was to graduate in 1876—Daniel C. Easton, the instructor in botany, gave a few students in his class the privilege of accompanying him on botanical excursions. These usually took place on the most beautiful days of the brief New England spring, when some of us, at least, were apt to find other attractions more potent. I, for one, used to make off at the first opportunity for Edgewood and the Mitchells', where with other similarly minded youths I passed the pleasant afternoon hours.

I was quite prepared to flunk my graduating examination in botany. Only a miracle saved me. The day before the examination I was discussing the matter with my classmate, Legrand Smith. I said despondently: "I don't believe I have one chance in a million of getting by botany. Even if I did know anything about it, I can't tell the difference between one flower and another."

"Well," he replied, "botany isn't really so hard. If you do what I tell you for the next two hours you may have a chance yet."

We were going up Hillhouse Avenue. He jumped over a fence and broke a branch from a syringa bush; opening his textbook, he showed me clearly the distinguishing features of that particular plant. Then and there I learned the syringa upside down and inside out.

As this was virtually my entire botanical preparation, it was with considerable inward trepidation that I entered the examination room the next morning. There stood the professor and before him on a table lay a variety of flowers. Each student was to take one to his

desk, name it, and classify it according to the manual. When my turn came I had but one hope—if there was a syringa there, and if I could get it, I might still pass. As I approached the table, my eyes searched eagerly through the tangled collection for my one and only friend in the field of botany. Yes! there it was. I was sure I could not be mistaken in its light green leaf and pure white blossom. As nonchalantly as possible I practiced all the legerdemain of which I was capable, extracted the syringa, and took it to my desk. Remembering Smith's analysis of it only a few hours before, I prepared a paper, turned it in the first of all those present, and received a perfect mark for it. Although I am no more able now than I was then to distinguish various flowers, there is one blossom I can always identify, and one delicate fresh fragrance for which I have a special affection.

As the time approached for graduation I had to make a choice of some profession. I realized that an office life would never suit me; I must do something active, preferably something with a dash of adventure. I liked the independent outdoor life with which I had become familiar as a boy in the mining districts of California. Had not gold mining caught and held my imagination then, I might have taken the railroad job that was offered me by my friend, Fred Crocker, of the Central and South Pacific Railway Company. I had studied nothing at Sheff that would lead specifically to mining as a lifework, but now that the time had come for a definite decision, I knew that I wanted to be a mining engineer.

Although my father had already sent me to Yale at considerable financial sacrifice, he concurred in my decision and gave his consent to my entering the famous Royal School of Mines at Freiberg, Saxony, as there were no good mining schools in the United States.

To be perfectly frank, what I really wanted to do at this moment was to continue my athletics and go to Saratoga for the athletic contests. My athletic career at Yale had been sadly interrupted by two illnesses. When I first entered I was in bed for two months with dysentery, and later I had fallen on my head while doing some tumbling stunts in the gymnasium and was laid up ten weeks. However, my father pointed out that it would be necessary for me to be in Freiberg when the semester started, so I set out for Germany.

62 The Autobiography of John Hays Hammond

Since this chapter in my life has been largely concerned with intimate affairs of Yale, perhaps chiefly interesting to Yale men, I should like to close it with a word about the Yale spirit, a feeling about which we hear much as undergraduates and one which even the least sentimental of us come to realize as the years go on. It is difficult to define. Perhaps only a Yale man knows what it is. Recently, while I was seeking for a definition, Mrs. Arthur Twining Hadley sent me a quotation from an article by Professor Charles Seymour, an article in which he attempts to explain to Yale graduates the purpose of the new College Plan at Yale. He writes:

The tradition of "good teaching" at Yale is very old. The students, following the natural tendencies of youth, emphasized the social rather than the intellectual aspects of the land, and developed that sentiment of solidarity that came to be called "Yale Spirit." Both aspects have persisted and their vitality may explain the fact that Yale has produced both eminent scholars and distinguished citizens. Four years on the Yale Campus prepared the undergraduate not merely for intellectual power but for a sense of social responsibility.

CHAPTER FOUR

Training an Engineer

MODERN EDUCATION IN A MEDIEVAL SETTING —
STUDENT DAYS AT FREIBERG — I AVERT A DUEL —
THE BIERKÖNIG — THE LURE OF VIENNA — I COMPETE
FOR THE QUEEN'S CUP AND WIN ANOTHER PRIZE

Shortly after graduating I set sail for Europe, and during the summer rambled pleasantly through various capitals with my two Yale classmates, Charles D. Hawley and John M. Cunningham. In the fall we three registered at the time-honored Königliche Sächsische Bergakademie founded at Freiberg in 1765. Although the subsequent establishment of great technical schools throughout the world, in which the United States now stands first, has turned later generations of mining engineers to other centers of learning, to the nineteenth century student of mining and metallurgy Freiberg was what Heidelberg and the Sorbonne were to his literary colleague. Freiberg had already produced a long line of leaders in the scientific world.

Among its famous sons were two great American figures: Rossiter W. Raymond and Raphael Pumpelly, pioneers and recognized authorities in mining and mineralogy, not only in America but throughout the world. The former entered Freiberg in 1860 and there prepared himself for a brilliant career of nearly sixty years which was to spread his fame as mining-engineer, professor, author, linguist, lawyer, editor, poet, and musician wherever science and literature were esteemed. Raphael Pumpelly, Freiberg '59, has been termed the American von Humboldt. Until his death in 1923 he

64 The Autobiography of John Hays Hammond

was pre-eminent in the eyes of the civilized world as author, engineer, and archaeologist.

From the great Werner, father of geology, down to my own time, those eager to extract her secrets and treasures from Mother Earth had turned to Freiberg for instruction; they had sat at the feet of her illustrious Herren Doktoren; under her stimulus they had sallied forth to unlock the hidden places of wealth and bid all nations partake of their abundance. They had learned "to scorn ostentation and live laborious days." Something more than mere intelligence and natural ability drove these pioneers of mineral science to apply their great talents to world-development. Moreover, their rigid training in this old Saxon school bade them prefer the truth and honor of their calling above material considerations.

Germany was a kindly, simple land in those days before *Welt-politik* became a national cult. Freiberg itself was one of the foremost mining centers of Europe, with a population of some twenty thousand. In every way it was in contrast to the sprawling, ragged mining camps with which I had been familiar in the American West. There were no shanties and no rutted, unpaved streets. There was no raucous crowd of adventurers gathered around saloon bars. Instead, the thrifty, earnest Saxons pursued a quiet and well-ordered existence, conscious perhaps of the great moss-grown bastions and frowning watchtowers of the twelfth century schloss, which brooded above them as a crumbling reminder of their feudal past. In the town below, the dreamy reverberations of the cathedral bell periodically dulled the noisy activities of the quaint old Obermarkt. Beyond the town were the famous lead-silver mines, the concentration mills, and the smelting works in which the ores were treated. Even then these mines had been in operation for six and a half centuries. They had yielded profits for some years, but during my time the profits were small if any; there were even occasional losses. The mines were maintained in large measure for educational purposes.

Hawley, Cunningham, and I agreed to room together, and presently secured pleasant lodgings which tradition said had once been occupied by Alexander von Humboldt. The additional rent, in any case, was an indisputable fact. We took no chances, however, of being deprived of any possible inspiration and promptly installed

ourselves in the great man's quarters. We had three plain rooms directly under the roof, up three flights of stairs in an old ramshackle building on a side street, but what did this matter in the "brave days when I was twenty-one"? Nevertheless, if von Humboldt's ghost ever did walk on those moonlit nights in Freiberg, it never sought us, high up in our chambers over the Hornstrasse.

Besides this Yale trio of ours, there were a few other Americans at the Akademie: Albert Seligman, of the banking family of that name; Herman Schlapp, who achieved fame in his profession as a metallurgist, both in this country and in Australia; and Frederick G. Corning.

The regular course at Freiberg, with the degree of mining engineer, covered four years. Most of the Americans at that time studied only three years and were not entitled to the final degree; although the curriculum of the three-year course was comprehensive enough to enable us to practice our profession in America. Corning was the only one of us who completed the full course and obtained a regular degree. He later earned recognition from many engineering associations and schools which showed their appreciation of his ability by conferring honorary degrees upon him. In 1922 he received the title of Ehrenbürger der Bergakademie from the Mining Academy of Freiberg, and in 1928 he was made Ehrensenator of the Freiberg faculty.

Probably no other educational institution in the world had a more cosmopolitan student body: Russians, Englishmen, Americans, Italians, Canadians, South Americans, Mexicans, Japanese, Chinese, Australians, Poles, Austrians, Bohemians—a truly heterogeneous collection of nationalities.

It must be said that a mining engineer is not graduated in the same sense as his medical or theological brother. Because of the very nature of his problems, nothing in the way of instruction can guarantee that he will be able to practice his profession with that well-rounded knowledge of his subject assured to the doctor of medicine or divinity. All that the mining school, or the school of technology, can hope to do is to make him versed in the fundamentals. Other things being equal, however, the mining engineer who engages in his profession with a firm foundation of study and

66 The Autobiography of John Hays Hammond

theoretical experiment naturally is immeasurably better equipped than if he had had no academic experience, and is likely to rise far higher than his untrained contemporary—with due respect to the old Forty-niners.

The distinctive feature of Freiberg training—unique at that time but almost universal today—was the division of time between lectures and laboratory work at the university, and field work at the mines. The former covered higher mathematics, descriptive geometry, mechanics, experimental physics, mineralogy, geology, paleontology, mining law, jurisprudence, mining concentration (ore dressing), ore deposits, mine surveying, and mining machinery. Finally, in addition to learning the German mining laws, whoever wanted a degree had to spend five or six months writing a thesis on a given problem or project in practical engineering, the subject being determined by the faculty.

In spite of the extremely difficult and technical nature of the curriculum, there was much frequenting of concerts and biergärten by professors and students. My friend Corning described the picturesque incidents occurring on the trips to the mines in his book, *A Student Reverie*. When day shift relieved night shift, or vice versa, there was usually a prayer service during which the miners sang hymns, to an organ accompaniment. This gave a weird effect, especially when carried on by candlelight.

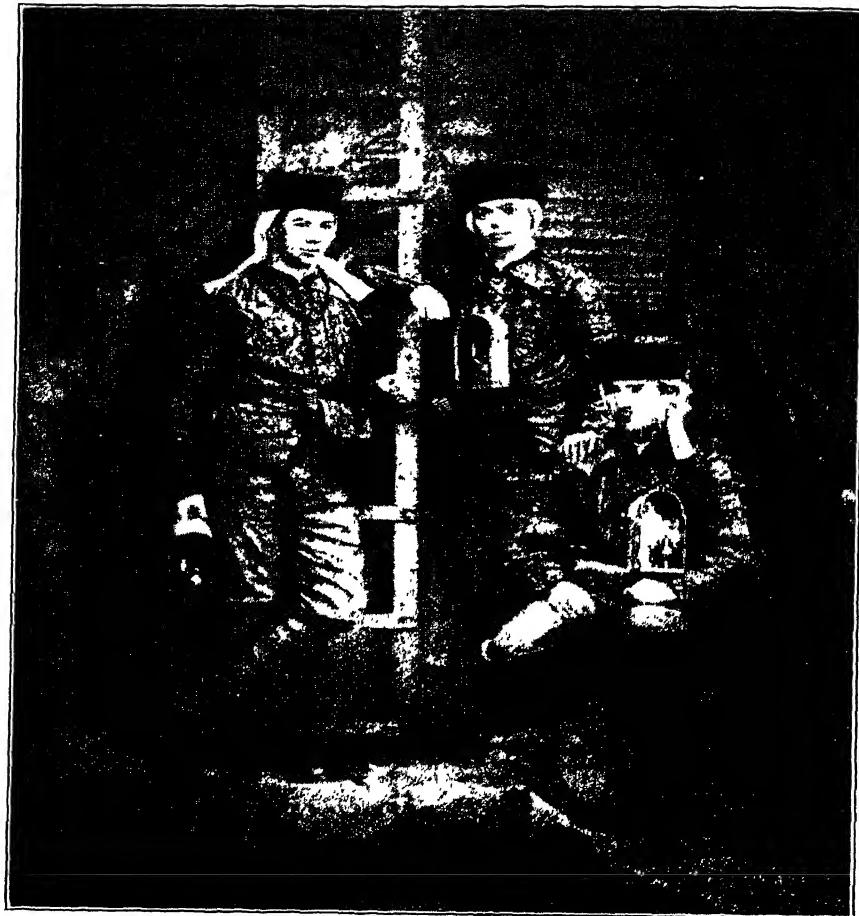
My friends and I had not been established long in Freiberg before we were waited upon in our sky parlor by one of the officers of a certain fighting corps. He was attired in full dress and carried an invitation for us to join. I, acting as spokesman, refused, saying we had passed through our rollicking days while at college and had come to Freiberg for serious work. "But," he retorted, "suppose you are challenged to a duel, what will you, as self-respecting gentlemen, do?"

To this I replied that it was not our custom to lay ourselves open to affronts nor were we in the habit of picking quarrels; yet, if any German insulted us, we should thrash him on the spot without waiting for the formality of a duel. That, I explained, was the way it was done in America and in England.



Arthur Twining Hadley Jan. 23, 1906

ARTHUR TWINING HADLEY (1856-1930)



HAWLEY, CUNNINGHAM, AND MYSELF,
UNDERGROUND AT FREIBERG

I was never again invited to join the corps and was never challenged. Instead of being antagonized by my downright declaration, the corps thereafter showed us many courtesies, especially at the time of its kneipen. Most of the Americans and Englishmen at Freiberg in my time felt as I did, choosing rather to belong to the Anglo-American Club than to the student corps.

The members of the corps did not always fight to avenge an insult. Sometimes the duels were arranged in a friendly spirit; the participants were selected by the ministers of war of each corps, the only stipulation being that those chosen should have had equal experience in using the schläger. Meetings were held from time to time in some quiet beer hall outside of Freiberg and several contests would take place. The attitude of the law toward dueling was decidedly inconsistent: it prohibited dueling—though no great diligence was manifested in suppressing it—and at the same time required that a surgeon be always in attendance.

A duel was not an entirely pleasing spectacle. Although the combatants were protected by a covering over the throat and other vital parts of the body, the affairs were likely to be gory. The blood was licked up by the dogs belonging to the corps. It was no dishonor to be wounded. There was hardly a graduate of a German university who did not carry one or more scars on his face. Indeed, every effort was made to transform the scars into permanent welts by keeping them unhealed as long as possible.

On one occasion a young student named Caesar Vicuña y Correa, brother of the secretary of the Chilean Legation in Paris, was challenged. Vicuña came to me in great concern, and reported that some impudent German had tried to pick a quarrel with him merely in order to force him to fight. Although he was not afraid to accept the challenge, he had promised his brother to have nothing to do with the corps.

I felt I was involved because Vicuña's brother had asked me to keep an eye on this newcomer.

"Don't worry," I said grandly. "You just leave the matter in my hands." Then added, "By the way, you're pretty good with a rapier, aren't you?"

68 The Autobiography of John Hays Hammond

Vicuña modestly admitted that he had studied in Paris under the best masters. I then sallied forth to meet the challenger's second in the appointed place.

"Vicuña accepts the challenge and has selected the rapier," I announced.

The second seemed surprised, and protested against the use of so dangerous a weapon, which, he insisted, was not justified by the trifling incident that had led to the challenge. I replied that, while the original affront may not have been sufficient to justify the use of the rapier, I could and would add an insult which must necessitate its use.

I then proceeded roundly to declare the contempt Vicuña felt for his cowardly challenger. The second avowed that that opinion and my manner of expressing it made a duel with rapiers practically obligatory, and he retired to consult with his principal. Meanwhile, I was letting the report be spread about that Vicuña was an accomplished swordsman. The net result was that, after some slight further negotiation, I succeeded in getting Vicuña's opponent to make a proper retraction of his challenge before the student body at Freiberg. Needless to say, Vicuña was never interfered with thereafter. He lived long, married, and begot eighteen children, who might have been lost to the world but for my timely intervention.

There was at Freiberg another type of dueling, in which beer instead of blood was spilled. The custom of beer dueling dates back many hundred years. Though entered into in a jocose spirit, it was conducted with great formality. At any slight violation of the etiquette of beer drinking among the students, the offender would be called to account with the challenge, "You are a beer junger." The challenged would reply, "Accepted!" or sometimes "Accepted double!"—the latter meaning that he was willing to tackle two steins of beer. An umpire would then be appointed to see that the steins contained the same amount of beer; in other words, that the opponents were evenly weaponed.

At the word "Los!" the drinking began. The man who first emptied his stein and struck the table with it was pronounced the winner. If either cheated by spilling or leaving a drop in his stein, he was sent to Coventry and tried at a beer court consisting of three

judges. Defense and prosecution had the privilege of engaging counsel and calling up witnesses, as in any court. The judges then pronounced sentence—a certain amount of beer to be consumed by the assembly and paid for by the guilty party.

A renowned beer guzzler enjoyed the distinction of being called bierkönig. The capacity of this beer king was incredible: thirty or forty quarts a day could be consumed by an expert. He was such an attraction in the beer halls that it was considered a privilege to be presented to him, to be accorded the honor of drinking a ganzer to his health, and in turn to treat him to a stein of beer. Beer drinking in such large quantities tended to make the imbibers gemütlich, and not disposed to fight, as are the hard liquor addicts. They became comatose rather than combative.

One of my most interesting summer vacations was spent with Count Hahn at his ancestral home, Castle Basedow, in Schleswig-Holstein. It was one of the celebrated estates in that part of Germany. This visit has ever remained in my memory. On my first evening at Basedow, I was given the seat of honor on the right of Countess Hahn, the mother of my friend, young Count Hahn. She was a remarkable woman. When we had finished dinner, I kissed her hand as was the custom and said, "Gesegnete mahlzeit."

I then escorted her to the drawing room for coffee. Cigars were passed. Countess Hahn selected a fat black one and smoked it with deep satisfaction. I also took one, my first attempt at smoking a cigar; the disastrous effect of that, too, has ever remained in my memory.

The elder Count Hahn was harmlessly mad. He spent most of his time collecting stamps to send to China. He believed that each stamp would convert a Chinese and that if he could send enough of them he would save the souls of the whole nation. The Countess Hahn was compelled to assume the management of their great estate, which she was well able to do. She was an enthusiastic sportswoman and kept a large racing stable. The Hahn stables had won races all over Europe, including—I have been told—every English classic except the Derby.

One day she had a very handsome mount brought for me to ride. I surprised her by saying, "I believe he is lame; he favors his off hind

leg." She had the horse examined, and the investigation showed that I was right. From this she promptly concluded that I must be an authority on horses. A day or so later a hunt was staged. All the guests posted themselves in wait for the game, which was to be driven in. I must confess that the way they handled their guns made me nervous and I kept conveniently near a large tree. Presently a fox was run up. All fired at him and missed. Then I was lucky enough to bring him down. The countess decided that I must be a great hunter also. She gave me her hearty friendship. Without immodesty I may say that I was an asset to my hostess for the vacation entertainments: I seemed to be something out of the ordinary and I was from fabulous California.

One day in Washington, nearly fifty years later, my friend Baron Ago Maltzan, the German ambassador, asked me whether I had ever been in Schleswig-Holstein. I replied: "Yes, in my twenty-third year, when I was studying mining engineering at Freiberg. I went there during vacation with my young friend, Count Hahn."

Von Maltzan smiled. "Curiously enough my father's estate, where I was born about the time you were at Castle Basedow, adjoins it."

Later the ambassador made a trip to Germany. On his return he told me that while visiting his father, then a very old man, he had mentioned his friendship with me. "And," he added, "my father remembers you very well."

As half a century had passed since my visit to Castle Basedow, and I had no recollection whatever of the elder von Maltzan, I found this statement difficult to credit. I said, "How can that be?"

The ambassador answered: "When my father heard that you were visiting at Castle Basedow, he made a special trip there just to see you. He never had seen anyone from California, and he was very anxious to find out what a young Californian would look like."

During my stay in Freiberg my father's old friend, General E. F. Beale, was American minister to Austria. I visited him several times at his Viennese home. It was he who had carried to Washington, D. C., the first gold nugget found by Marshall. In 1861, Lincoln appointed him surveyor general of California. The early Mexican land grants, heavily encumbered by the easy-going ranchers, were being sold to satisfy creditors and were going begging for buyers.



MY WIFE, NATALIE HARRIS



MYSELF AT FREIBERG

Beale went into the market and acquired league upon league of land. Lincoln heard of his purchases and disapproved; he was himself too honest to relish even a hint of any wrongdoing on the part of one of his appointees. He asked one of the California senators, "Senator, what sort of fellow is this man Beale of California?"

"A pretty good fellow, Mr. President. Why?" came the reply.

"Well, I appointed him surveyor general out there, and I understand that he is 'monarch of all he has surveyed.' "

An investigation quickly cleared General Beale of all suspicion and Lincoln, satisfied that there was no dishonesty, continued him in office.

When Grant became president, Beale was appointed minister to Austria, a post requiring much tact because of the strained relations arising out of the unforgotten Maximilian episode in Mexico. Under these difficult conditions, General Beale scored a brilliant diplomatic success. Part of his personal popularity, perhaps, was due to the princely hospitality he dispensed.

At the Beales' I was treated as one of the family. Mrs. Beale appointed me a committee of one to hunt up and invite deserving American students to her receptions, while General Beale gave me the opportunity to meet many of his colleagues in the diplomatic corps. During my first visit, the Russo-Turkish War was in progress. Speculation of all kinds was rife; gossip and intrigue filled the air; the innermost secrets of the chancelleries were openly whispered everywhere. Naturally I took advantage of every opportunity to absorb inside information about the "sick man of Europe" and the suggested remedies.

The beautiful Empress Elizabeth had not yet withdrawn into retirement, and the court at Schönbrunn was maintained with all the pomp that had always surrounded the Hapsburgs. Although I did not meet Francis Joseph at this time, General Beale managed to smuggle me into some of the minor court functions. I was deeply sensible of the lure of Vienna itself, compounded of bright skies, smiling green parks, crowds of gaily dressed people, gorgeous uniforms, lilting waltz echoes, and incomparable cafés and beer gardens. The *Blue Danube* was new then and Johann Strauss was a popular figure at social functions. To a young man like myself,

avid for new experiences, Vienna offered a fascinating introduction to the cosmopolitan European world.

From Freiberg we made occasional visits to Dresden, the Saxon capital, then as now famous for art and music, and popular with Americans. There I met General Nathaniel H. Harris, a Confederate veteran who had brought his young niece, Natalie Harris, to Europe to complete her education in music, and to finish the training of an already beautiful voice. The enchantment of the old town, the common bond of language, and the sense of companionship in exile—all were conducive to romance. I soon realized that Miss Harris meant considerably more to me than a pleasant acquaintance. For some reason which I have never completely understood, she was led to entertain similarly warm sentiments toward me.

At this time it was the custom in Dresden to hold an annual track meet, open to all the students of Germany. At its close, the queen of Saxony would present a cup to the winner of the greatest number of events. While most of those who accepted the invitations to compete were Englishmen, a few Americans and Germans also entered the contest. I enrolled myself in all five events: the hundred yard dash, the hundred and twenty yard hurdle, the quarter mile race, the quarter mile hurdle, and the high jump.

Because of my extreme nervousness at the prospect of appearing before royalty, I felt the need of some special inspiration. Making a jest of a serious matter, I asked Miss Harris what she would give me if I won the queen's prize. She replied, in the same vein, "I will give you my hand." Whether she regarded my victory as a hundred to one shot or not has always been a matter of conjecture, but I had obtained her promise and girded myself for action.

At Yale I had learned something about the value of technique in track events. The technique of hurdling, however, I learned in Germany by watching my English rivals practice. From them I picked up the trick of taking the hurdles in my stride rather than gathering myself together and leaping each hurdle as a horse takes a jump. With this borrowed form I managed in the hundred and twenty yard hurdle to better the record established the previous year in the Oxford-Cambridge meet. I thus became for two years the proud

holder of an international record, although I could not have held it for five seconds against a modern hurdler.

In his recollections of those days Fred Corning described me as "not of a long-legged Apollo type of beauty." Nevertheless, I lost only the high jump and I managed to win the four races, and thereby won also the queen's cup. Surely never was prize so thankfully grasped; I am not certain that I did not snatch it from Her Majesty's hand. I do distinctly recall my bow, which, because of its alarming depth, became a legend among Freiberg students.

As I advanced to receive the prize, my long blue cotton stockings modestly covering my knees, I was obliged to walk over wet grass. Even beneath my spiked track shoes the turf was exceedingly slippery and, when the queen handed me the cup I had not only to bow but to retire backwards. Between my original inclination of the body and the first step backwards over the slithery turf, I achieved an obeisance so profound that it brought my forehead almost on a level with my feet. Just in time, I recovered my balance and backed off with comparative dignity, while the German audience, as I was told later, gasped at the astounding grace of the American youth.

Thus, in the quaint old German town, I found the guide to all my better fortunes.

When I wrote the news of my engagement to my father, he replied delightedly that it was none other than General Harris's mother who had entertained Sherman and himself when, as young officers, they had been in Vicksburg on their tour through the South after the Seminole War. It was, therefore, not the first time that a Hammond had bowed to a Harris!—the last welcome was no less cordial than the first. It appeared, too, that one of General Harris's brothers had served in the Louisiana Tigers when commanded by my uncle, General Harry T. Hays, and that the two had been intimate friends.

In this pleasant fashion I brought my three years' stay at Freiberg to a close in 1879. I was in possession not only of my professional education, but also of my future wife. It was now necessary for me to apply my training to practical life—to win my spurs, as my father wrote my fiancée—before I could be married.

Accordingly, I packed my bags and began the long trip home to the Far West.

CHAPTER FIVE

The Bottom of the Ladder

DOWN IN WESTERN MINES — SLEEPING WITH A MURDERER — THE HANGING TREE — TOMBSTONE AND GUNPLAY — WYATT EARP — CRIME AND LAW ENFORCEMENT — CAPTAIN BILL MACDONALD — I PROFESS IGNORANCE TO OBTAIN A JOB — THE FIRST MONEY I EVER EARNED — I JOIN THE UNITED STATES GEOLOGICAL SURVEY — THE BAD MAN OF BODIE — A NEWCOMER AMONG THE OLD-TIMERS — GHOST TOWNS — ROUGH TRAILS

*A*lthough my training at Freiberg had been the best obtainable at that time, I was convinced that I needed additional practical experience particularly in quartz gold mining and the metallurgical treatment of gold ores. Therefore, almost immediately upon my return to California, in the autumn of 1879, I sought and secured introductions to the superintendents of the Idaho and Original Empire mines in the Grass Valley district of California.

Grass Valley is situated in Nevada County some fifty miles north of the great Mother Lode, a mineral-bearing zone which extends for eighty miles along the western foothills of the Sierra Nevada range, but the Grass Valley veins have no resemblance nor geological relation to those of the Mother Lode system. It was in this—the Grass Valley—district that quartz mining had been initiated in 1850 and here its peculiar technique was best developed. After profitably

spending several months in the mills and underground workings, I decided to inspect the mining districts of Arizona. My Freiberg classmate, Jack Cunningham, always ready for adventure, joined me on this trip.

Our route necessarily led through Casa Grande, Arizona, then the most important outfitting station for all those headed for southern Arizona or northern Mexico. There we met Major Pauline Cushman, who—with Lotta Crabtree and Modjeska—holds a place of special honor in the hearts of all good Westerners.

Major Cushman had won her commission for secret service work within the enemy's lines during the Civil War; up to that time no woman had attained this rank in the United States Army. Her usefulness to the northern cause was supposed to have been considerably impaired, however, by her having fallen in love with the handsome Confederate raider, "Guerrilla" Mosby, whom she had been sent to spy upon. This incipient romance must have failed to develop as, at the time of our visit, she was married to Jerry Fryer, a one-eighth Cherokee Indian. Fryer was over six feet in height, exceptionally handsome and striking looking. He had also been financially successful. Starting with a tent-structure hotel at Casa Grande, he later built adobe houses, and eventually Jerry Fryer's outfitting place became as well known in the Southwest during the seventies and eighties as Sutter's Fort had been in the days of the gold rush.

I did not neglect to visit the ancient Indian ruins near Fryer's place. These adobe buildings, two or three stories high and rising directly out of the desert, were most impressive. It is thought by archaeologists that their inhabitants were related to the cliff dwellers, but nobody knows exactly who these people were, or when and why they abandoned their city. Although of an extremely primitive civilization, they had built a system of irrigating canals extending thirty or forty miles from the Gila River to Casa Grande, and such good engineers were they that the grade and width of the canal system were carefully regulated to the needs of water development along the course of the river. Today this system has been reopened and utilized.

76 The Autobiography of John Hays Hammond

After outfitting at Casa Grande, Cunningham and I moved on to the Silver King. This mine, which produced eighteen million dollars during its lifetime, played an important part in the development of the struggling Arizona Territory. Our next stop was Globe, the new rush mining camp in the heart of the Apache country. We made an early start across the mountains, taking with us a pack mule to carry our camping equipment and assay outfits. We had been told at Silver King that about halfway to Globe there was a small ranch kept by a woman who would provide us with an exceptionally good meal.

We arrived at the ranch about midday with a good keen appetite, but found it deserted; not a human being was to be seen anywhere around. Disappointed in our hopes for a meal, we proceeded on our way without any suspicion that an Apache raid only a few hours earlier had forced the owner of the ranch to take to the hills. It must have been by some special providence that we reached our destination late in the afternoon without having encountered a single Indian. When we told the stablekeeper at Globe that we had crossed the trail he was amazed. Had we been even a few hours earlier we would have run into an Apache raiding party.

If we had been attacked it would not have been much out of the ordinary, since in the late seventies there were in Arizona numerous bands of roving Apaches who were unreconciled to the invasion of the white men and were, consequently, a serious menace to the lone traveler. Journeys, in stage or on horseback, demanded constant vigilance and considerable boldness.

Nor were the Indians the only dangerous wild men in Arizona. On our arrival in Globe, Cunningham and I went to the principal hotel, a roomy tent-structure run by a lady fully able to cope with any emergency, even of a new mining camp. Jack was lucky enough to get a bunk at once; he was not feeling well, so he turned in immediately. A little later I applied for a bunk, but the landlady said there was none available—all had been taken and paid for in advance. In spite of the woman's hardened appearance, I appealed to her motherly instinct. I told her how weary I was, what a hard trip I had made, and how grateful I would be for a place to spread my blankets. Finally she pointed to a bunk in the corner, saying

that a man had engaged it for a week and had paid for it; "but," she added, "he hasn't been here for a couple of nights, and if you're willing to take a chance of him throwing you out if he comes in, you can go on and have it."

I was so dog-tired that I was willing to take the chance and did not much care whether he turned up or not; at least I would try to get some sleep first. About midnight, I was roughly awakened. Somebody was grabbing my shoulder; wanting to know who in hell I was and why in hell I was where I was. *He* had turned up. I tried to explain as patiently—and as soothingly—as a sleep-drugged man could. It made no difference, I'd better get out quick or he'd throw me out—which way did I want it? I saw that he was somewhat the worse for a certain kind of wear, and with what was nothing less than inspiration pointed to my coat hanging on a nail at the bunk head.

"Friend," I said, "have a drink." He reached into the pocket and fetched out a flask. Taking a handsome swig, he passed it to me, and to fan the fire of a feeble friendship, I joined him. After that it was no trouble to get him to say that he wouldn't mind sleeping with me, while I intimated that I would be pleased to bunk with him. Again I rolled up in my traveling blankets and dozed off. About daybreak I awoke, to find him just departing.

Thinking no more of this incident, Cunningham and I spent two days in an outlying mining district. As we were riding back towards Globe we noticed a large crowd of men assembled a little way from the trail under a big cottonwood tree, famous for years as the hanging tree of Globe. This could mean only one thing in the Old West.

"It must be a hanging-bee," I said to Cunningham. "Have you ever seen one?"

At his negative reply, we turned our horses and galloped towards the lynchers. We arrived just as the victim was being cut down, and to my horror I recognized in his distorted features the face of the man with whom I had slept in the disputed bunk.

When we had returned to the tent-hotel I asked the landlady whether she knew what had just been happening.

"Lord, yes!" She knew all about it. "That feller tried to hold up the Wells-Fargo messenger a couple of nights ago, and shot and

killed the stage driver." I realized then why the bunk had not been claimed until midnight, and that the lamb had truly invited the lion to lie down with him.

As the lady of the tent concluded her brief and casual relation of this not-unusual western episode, she turned from us into the kitchen, whence issued sounds that to trained ears meant flapjacks for supper.

From Globe we took the stage for Tucson, then a center for mining supplies and the only town of any importance in the territory. With the exception of the adobe huts of the Mexican quarter, it contained only a few brick buildings. Cunningham and I put up at the Palace Hotel on the naïve theory that even in the West this name must somehow mean something. But with a caution also western, I examined the bed before turning in, and found that I was not to be the original user of the bedclothes. I went to the proprietor and remonstrated with him at this secondhand condition. He seemed very much surprised at my complaint, and without the least affectation replied, "Well, your blood much be rich, if you object to sleeping in a bed just occupied by a New York millionaire."

From Tucson our trail of inspection led to Tombstone—already a lively camp—where great strikes had been made less than a year before by the Schieffelin brothers, Edward L. and Albert E.

I listened eagerly while the brothers regaled me with the story of how they had found a rich outcrop in the heart of the great desert, sunk a shaft, and begun its development. While one of them descended into the hole to pick away at the rock, the other remained aboveground to haul up the bucket. Realizing their danger, alone and far from any sort of community, with hostile Apaches near, they agreed that if any Indians should appear while one man was down the shaft, the other would not wait to haul him up but would run for his life. If he escaped, he was to return and erect a tombstone for his brother.

Fortunately, they were unmolested and succeeded in exploring their rich find and establishing their claims. In memory of the risks they had run, they put up a board on which they inscribed TOAMSTON as the name of their mining claim.

Within four years over a thousand claims were being worked in the immediate vicinity. When I saw the town at the end of 1879 it

was the richest mining camp in Arizona. In what seemed unending streams, silver came pouring from gaping holes in the very streets. One newspaper had been founded, but since there were already two factions in the town, another journal was manifestly necessary. I suggested to the prospective publisher and editor that he call it the *Tombstone Epitaph*. He immediately accepted the idea and in gratitude sent me free copies of the paper for many years thereafter.

Every old Westerner of the seventies and eighties of the last century will instantly recognize the name of Wyatt Earp, famed as gunman in many an Arizona and Southwest fight. He came to Tombstone in 1879 as deputy sheriff and so great was his proficiency that within two months he became a United States deputy marshal. His successful war with the tough Clanton outfit of cattle rustlers showed that the citizens of Cochise County had not misplaced their confidence. In addition to his duties as a peace officer, he rode shotgun for Wells, Fargo and Company and had an interest in the Oriental saloon, where stakes were high and six-shooters always in evidence.

Earp was not a gunman in the modern sense of gangster. The passing years give different values to words and expressions. The man whom the old frontier termed a gunman was one who fought under a certain code: he never shot even an enemy in the back and an unarmed man was perfectly safe with him. In those days, too, there existed the type now termed gunman or gangster; they were called killers and gun-notchers and were universally despised.

In all mining towns the saloons greatly outnumbered the stores. Every saloon had its green baize tables for faro, roulette, and poker; stacks of variegated chips lay on every table, and a pale gambling overseer in neat black clothes was seated impassively on a raised platform dominating the room.

When the gold rush of 1897 to the Klondike started, Earp went north. A prospector who had also gone to the Klondike told me a story about Earp which not only gives a colorful picture of early days, but is also an example of the stability of English law. The latter is much less concerned with the picturesque than with the enforcement of justice.

A day or so after his arrival, Earp strolled into a Dawson saloon.

80 The Autobiography of John Hays Hammond

It was filled chiefly with Americans, many of them newcomers who in frail boats through hundreds of miles of whirlpools and rapids had followed the drifting, breaking ice of the Yukon. Having finally reached this new and wonderful El Dorado, they felt that a big celebration was indicated. Among these Chee-Chaw-Kas—as new arrivals were termed—was a sprinkling of the old gun-toting bad men. One of them, known as Tumbleweed Todd, was still carrying his six-shooters under his mackinaw. After imbibing freely on one occasion he became suddenly generous and offered to treat the whole house. If any man refused to drink when invited (and this rarely happened), it was a personal insult and often led to a gun fight. Nevertheless, among those who refused to drink in this Dawson “Hell of Joy” were several Englishmen, who resented the compulsory nature of the invitation.

Things had reached a critical and dangerous point when Earp entered the room. He had faced many similar situations and quickly realized the nature of the trouble. Stepping in front of the irate and befuddled Tumbleweed, Earp said in a level tone, “I also refuse to drink with any low-down sagebrush coyote like you.” With a mighty oath Tumbleweed started to draw his gun, but found his gun hand locked in a steely grip while his bloodshot eyes looked down the barrel of Earp’s gun.

Thereupon a rather small man, in every way Earp’s physical inferior, detached himself from the crowd and tapped Earp on the shoulder. He explained pleasantly enough that it was not permitted in Dawson to carry pistols, and furthermore that it would be necessary for Mr. Earp to appear at headquarters within half an hour and hand over his weapon. It would be returned to him whenever he should be ready to leave town.

The audacity of the action took Earp’s breath away.

“And who the hell are you?” he asked.

The insignificant-looking man explained casually that he was in command of the Northwest Mounted Police in Dawson. He did not, he said, wish to have a scene in the barroom. Taking out his watch, he added, apparently unconscious of the six-shooter still in Earp’s hand, “I shall expect you in thirty minutes—meanwhile there must be no shooting.” Then he turned and walked out slowly.

Earp returned his gun to its holster, and still holding the Chee-Chaw-Ka's wrist, said in a voice which carried throughout the room: "Tumbleweed, you long-eared ass of the desert, we're in British territory. You don't seem to savvy what that means. You're up against a game you can't beat any way from the ace. Listen! You'd better go hand over your guns like the little fellow said; I'm going to myself. If you don't, he and some more of his men will round you up. You'll shoot their eyes out—maybe. You're fast on the draw. Then you'll have to get scarce. But every pass out of the country will be blocked—with more of them waiting for you. The militia of Canada will be after you. You'll shoot all of them up too—maybe. The next news you'll get will be that the whole British Army is steaming to Canada to pick you up.

"They'll not shoot you down on sight—it's not their way. They bring their prisoners to jail, these British. You'll get a perfectly fair trial. And the next news about you won't interest you—it'll be a paragraph in the papers reporting that 'Tumbleweed, the gunman, today expiated his crimes on the gallows.'—I tell you this is Canada, and it's also Great Britain—and not the States. Now I'm going to invite the whole house to drink with me and then you are going over with me to turn in your artillery to that little sawed-off officer."

This time there were no refusals.

Lack of law enforcement is a far worse thing than lack of laws. Our metropolitan towns of today and our western wilderness of yesterday combine their annals in recording conclusively this truth. Metropolitan crime statistics and the history of vigilance committees prove it. In the cities feeble enforcement encourages, protects, and multiplies our modern criminal population.

In these days of racketeering and kidnapping there has been much public discussion about the cause and cure of crime and crime waves. The explanation seems to me to be simple. There is no peculiar criminality inherent in the American people: we are not very different from Canadians or Englishmen. Nor does the fault lie in the leniency of our laws: our laws are quite as severe as those in other countries, and there are many more of them. Our error lies in the delay allowed in our judicial procedure, and the loopholes provided by law for the escape of the criminal, aided by unscrupulous lawyers

and corrupt politicians. When the criminal is assured that apprehension is certain, and conviction quick and sure, he will be much more reluctant than he now is about venturing into crime. The celerity and sureness of English justice has been the object of my admiration in Africa, and in Canada; and if we in America are more crime-ridden than are people in those countries, it is our own fault. In the wild West there was some excuse for the weakness in the administration of governmental justice. Moreover, it is to the lasting credit of the Westerners that, in the unsettled conditions prevailing in the early days, they set up irregular courts that dealt out punishment swiftly and without impediment of politics.

Some years after meeting Earp in Tombstone I encountered him again at the Tonopah mine, of which I was consulting engineer. Claim jumpers were making a good deal of trouble and he had been installed as "caretaker." I introduced myself as one who had seen him in Arizona in 1879, and told him I was glad to have so capable a man attached to our interests.

"But," I warned, "I'm opposed to gun fighting over mining property. I've seen enough of that sort of thing and believe we are now in a different and better era. Our ownership of this ground will be established by a judicial decision in a trial now pending. Avoid gunplay. I want you to promise me that you will not shoot except in self-defense."

He put out his hand and we shook on it, but in a hesitating way he added, "I'll go through with you on that, Mr. Hammond, but I must be the judge of when the self-defense starts."

I was prettily outplayed and admitted it.

Then Earp added characteristically, "However, Mr. Hammond, I will let my opponent start the draw."

Fortunately we won our case, so that Earp did not have to make that fine distinction between attack and self-defense.

Captain Bill MacDonald was another character who commanded my admiration, though he differed in many particulars from the Earp type. For many years MacDonald was captain of the Texas Rangers. Moreover, he was on several occasions the hunting companion of Theodore Roosevelt and I met him while he was visiting the President at the White House. Subsequently, on Colonel House's

recommendation, he became one of the bodyguard of President Wilson.

Bill MacDonald was involved in many shooting scrapes in the discharge of his duty. He seemed to have led a charmed life, and I once commented on this to Colonel House, saying that MacDonald's numerous escapes seemed incredible. Colonel House said he had himself once asked Bill how he accounted for the fact that he was still alive and how he had had the courage to face some of the desperate criminals he had been obliged to arrest. Bill answered: "It's not as difficult as it seems. I always had a psychological advantage: I knew that no fellow in the wrong can stand up against a fellow in the right who shoots and keeps acoming."

It was while Cunningham and I were still in Tombstone that Jack received his western baptism by fire. We were sitting about a table in a saloon one night when shots were heard in the hall. I dropped instantly to the floor. When Jack leaned anxiously over me, thinking I had been wounded, I cried: "Lie down, Jack! I'm all right. If you sit up you'll get hit!" Cunningham flattened himself out. For a few minutes spurts of flame and the whizz and crash of bullets made conversation difficult. Even after the row had quieted down, it was only by exercising my strongest persuasive powers that I could induce Jack to resume his normal upright position and have another glass of beer.

At the end of my two finishing courses in Grass Valley and in Arizona, I returned to San Francisco in an effort to find a paying job as an engineer. My father suggested that I see an old friend of the family who had lived near our house when I was a child. His sons, my brother, and I had been intimate during our childhood, but I had not seen this friend since my boyhood days. Through the promotion of mining properties he had amassed what was considered in those days a large fortune, and he had, of course, a good deal of influence in the mining world.

When I called upon this friend he asked me to dine with him and his family. During dinner he spent much of his time trying to impress upon me that I had made a great mistake in going to Freiberg; he claimed that engineers educated in the theory of mining

84 The Autobiography of John Hays Hammond

had not been successful. He himself put more faith in the practical man. In short, I gathered that he would not recommend me.

Bitterly disappointed over my failure to get a job, as well as at this unfriendly attitude, I described the interview to my father. Although he also was surprised and disappointed, he said little.

I learned afterwards that this friend, when a young man, had come from Virginia to California with a letter of introduction to my father. My father and the friend's brother had been at West Point together and both had served in the Mexican War. He was greatly desirous of securing a position which would enable him to bring his fiancée, whom he had left in Virginia, to California. My father, who was collector of the port of San Francisco, gave him an appointment in the Custom House, and this enabled him to marry soon afterwards. My father realized that I was actuated by a similar motive in my desire to find a position. I insisted, however, that I was not discouraged, and that I was determined some day to prove to this friend of the family he was wrong. I was determined to make good. His rebuff was merely an added stimulus. Not long afterwards this man lost his fortune on the advice to invest in properties recommended by his "practical" mining expert.

I next went to Mr. George Hearst—later Senator Hearst, another friend of my father and head of the mining department of the powerful firm of Haggin, Tevis, and Hearst. Hearst and J. B. Haggin were a remarkable pair of enterprising and daring capitalists. In the later seventies and eighties they controlled the greatest mining operations in America, including the Homestake in the Black Hills of South Dakota, the Anaconda Copper in Montana, and the Ontario Silver mine of Utah.

Expecting that family friendship, if nothing else, would procure me a position, I confidently asked Mr. Hearst for a job. To my amazement and chagrin he cheerfully declined even to consider me. When I regained control of my voice I inquired somewhat shakily why I was so firmly repulsed.

He replied frankly: "The fact of the matter is, Jack, you've been to Freiberg and have learned a lot of damn geological theories and big names for little rocks. That don't go in this country."

I asked whether he had any other objections.

"No," he answered, smiling. "Freiberg is enough."

"Well," I said, "I'll make a confession to you if you won't tell my father. I *didn't* learn anything of importance at Freiberg."

"What!" ejaculated Mr. Hearst. "In that case you might come around tomorrow and perhaps I can give you a job."

In this unorthodox fashion I secured a start in my profession. The position itself was no sinecure. Not only did I have to assay ores; I had also to build fires in the furnaces and crush the samples before I could make the actual tests. This took my entire time and energy working at top speed from early in the morning until late in the evening, for all of which I received the munificent compensation of fifty dollars a month. However, it was a beginning. I left no stone —or rather, no ore—unturned to win Mr. Hearst's regard and overcome his scorn of my academic training.

After several months, I went to my employer, and told him what responsible work I had been doing; I reminded him that he was investing large sums of money in purchases of property based on the reliability of my assays. I suggested that I had perhaps been overlooked in the shuffle.

He assured me that, on the contrary, he had not forgotten me and was especially pleased with what I had accomplished. "You've done so well I'm making you mill superintendent at the Homestake." This mill had just been completed and was the largest in the world. I jumped at his offer and was prepared to go within a few days.

Then, quite by accident, on the very evening of my appointment, I saw Gardner F. Williams, one of the leading mining engineers of California, who was later to make a great reputation as the manager of the famous diamond mines at Kimberley. He said he had just received a letter from Clarence King, director of the United States Geological Survey, asking him to recommend two or three young engineers with technical training and some experience, to collect statistics on the mining industry of the West.

He assured me that this was a great opportunity to widen my experience and to become a special expert in gold mining in California, and strongly advised me to accept the offer. I replied regretfully that I had just tied myself up with an engagement to George Hearst. Williams suggested that I explain matters to Hearst; if he was really

friendly to me, he would release me from my commitment. I followed his advice and consulted my employer. I was not only advised to accept the government position, but was congratulated on "the opportunity of learning a lot at the expense of the government."

Under the Census Act of 1880, the special experts of the United States Geological Survey were empowered to make detailed examination of such items as cost sheets and profits of the mines. This new position gave me an opportunity to round out my knowledge of mining operations with a study of the economics of mining.

As soon as I received my credentials I went by train to Carson City, Nevada. From there I traveled by stagecoach to Bodie, California. At that time—eighteen years after the death of W. S. Body, who had discovered the first rich gold deposit there—this was a booming mining camp. Body had been frozen to death immediately following his discovery and but little development had been carried on until 1878, when a rich strike of gold and silver brought a rush; thousands of fevered miners poured into the camp with the usual accompaniment of tinhorn gamblers and women of ill repute. A year later Body was dug up and given a formal funeral, complete with newspaper and oratorical eloquence.

When I saw the town in 1880, it had already established its reputation for wickedness. The "Bad Man from Bodie" was not a fictitious character.

Carl P. Russell, of the National Park Service, tells the story—which may be believed or not—of a little girl who, about to leave Truckee for Bodie, prayed, "Good-by, God! I'm going to Bodie." So ran the report in the Truckee newspaper, to which a Bodie paper replied that the punctuation was at fault—what the child had said was, "Good, by God! I'm going to Bodie."

On the morning of my arrival I was walking down the street, when, without warning, the wooden arcades that lined the walks to the hitching rack suddenly blazed with gunfire, and peaceable citizens jumped for cover. In the exchange of shots a bystander was inadvertently killed. A vigilance committee sat at once. The trial was characteristically brief, the greater part of it being devoted to a severe reprimand to the killer for his poor marksmanship. Without further formalities they swung him from a tree. The vigilance

committee thereupon drew up and affixed at the post office a notice warning a dozen men of bad reputation to be out of town before morning. When the sun rose not one of these was left, but there were plenty of others.

The popular boast of Bodie inhabitants was that they "had a man for breakfast every morning." As a newcomer, I was not inclined to challenge this assertion, for during the first week of my stay there were no less than eight killings. It was possible to shoot down an enemy on the streets at any time in cold blood without interference by the authorities. Most of the slain could be well spared from the community. Rarely was an unoffending citizen a victim; the shootings were usually confined to the "bad men" themselves.

Strange as it may seem, there was at the time probably no other part of the world where refined women were accorded the respect they were shown in the West during these early days. Bodie was no exception. Miners, gamblers, outlaws—all of them discriminated accurately between women of the streets and "real ladies." A respectable woman could travel anywhere at any time without fear and without need of protection, and invariably was treated courteously.

Since saloons were the general meeting places of the men of the town, they were the scenes of a good many gun fights. There was usually present at least one gun-notcher willing to accommodate anyone who wished to try conclusions with him. I was not ambitious to earn the reputation of being a better man than anyone else, so I was never molested. As a matter of fact, I came to know and even formed friendships with some—regarded generally as outside the pale—of the less disreputable citizens of the mining camps.

My youth was often a handicap. This was especially apparent whenever I joined a group of miners of the vintage of Forty-nine gathered around the stove discussing geological theories of ore deposits, or some similar technical problem. I was, of course, anxious to contribute my own ideas, but whenever the weight of the argument seemed to be going in my favor the discussion would drift to the early days of California mining. With ill-concealed superiority, one of the old pioneers would shift his quid and ask me in a patronizing way when I had arrived in California.

I had naturally taken advantage of every previous opportunity to

88 The Autobiography of John Hays Hammond

make clear that I was not a newly arrived tenderfoot from the East, but my youthful appearance confirmed the suspicions of unfriendly critics that my mining experience had been brief. When I casually mentioned the year 1855, the obvious skepticism of my hearers, themselves consummate liars, would force me into a feeble admission that the date marked my first arrival anywhere. While it is true that I was not an Argonaut, I have been argonauting ever since. Horace Greeley said, "Go West, young man, and grow up with the country." Since I was born as far west as possible in the United States, I had to go east in pursuance of the activities of my professional career.

In 1880, Bodie was a town of some three thousand inhabitants, with a continuous flow of population in and out, and was the center for forty or more mines. My examination of the mines in this district unfortunately showed that few of them could be worked profitably, and that the majority would have to shut down. The stock market gambling in mining shares was then at its height, and the physical value in the mines themselves certainly did not warrant current prices of stock. As a matter of fact, during the next year the shares crashed and many of the mines were closed.

The Standard and the Bodie remained in operation and continued to be profitable for several years after they were combined in 1887. Interest in this district was revived in 1929 and 1930 by the development work undertaken by the Bunker Hill and Sullivan in the hope of opening up other ore bodies. After the ill-advised expenditure of considerable money this hope was definitely abandoned.

Although my predictions as to the district proved sound, I was so young an engineer that I received little credence. Moreover, under the government's promise, my report on values had to be kept secret. If it could have been made public, the almost immediate proof of the correctness of my valuation would have greatly contributed to my reputation and success as an engineer.

It used to be the saying in the mining camps that when the saloons, gamblers, and disreputable women began to move away, just as rats are said to leave a sinking ship, it was an infallible indication that the camp had seen its best days and prosperity was on the decline. Then individual by individual, group by group, the miners would

drift away as the ore bodies became exhausted. The romantic days of the fever left as their only tangible record the empty frame of the town. Transportation was too difficult and costly to make it worth while to carry off the buildings, which remain even today in out-of-the-way corners of mountain and desert—mere shells of houses. Here and there a dump of rusty cans, and empty whisky bottles, and perhaps a dilapidated stamp mill help to carry out the illusion of a naked skeleton.

Bodie is now, for the third time in its history, a ghost town. No one has better explained the feeling of utter desertion than has Don Blanding in the following lines:

The ghost-town's empty windows stare like
wistful eyes
Down streets where nothing moves save memories
and the wind.
When midnight comes to Sawdust Corner, eerie
cries
Ring out, recalling nights when rowdy sins were
sinned,
Bearded miners, seeking laughter and bright
lights
As well as liquor, flung gold nuggets on
the bars
For brief forgetfulness of lonely mountain
nights . . .
Their cries are only hoot-owls mocking at
the stars.

From Bodie, I proceeded to Mono Lake and then south to Mammoth, another center of mining excitement. The mines there also proved of slight value, and I so informed the owners, naturally to their disappointment. They had gone to the extent of erecting a mill in anticipation of ore that existed in imagination only. The worthlessness of the enterprise was apparent to any trained engineer and within a few months speculators and prospectors were moving on to other fields. Today there is at Mammoth a summer camp for trout

90 The Autobiography of John Hays Hammond

fishermen, while the crumbling timbers and rusted machinery of the old mill are merely curiosities for the tourist.

In 1880 there were but two practicable passes by which I could return over the Sierra Nevada divide: Sonora Pass, forty or fifty miles north, and Mammoth Pass. Both had been Indian trails to hunting and fishing grounds in the high mountains, but with the development at Mammoth in 1879 the old trail was blazed and monumented and made barely passable for pack animals between Mammoth and Fresno Flats. With guide and pack train I crossed the divide to Red Meadows, then rode down the upper reaches of the San Joaquin River to Little Jackass Meadow, and so came out on the western foothills of the mountains and back to where the mines on the Mother Lode were located. For nearly six months I wound my way northward through the gold districts, on horseback or by buckboard; in the hot months of summer moving in an enveloping column of suffocating red dust; when colder weather came, lurching through mudholes and snowdrifts.

The hardships of early mining trips through New Mexico, Arizona, Nevada, and other parts of the West seem incredible when compared with the trips de luxe made by the present generation of mining engineers. I recall one journey in the summer of 1885 into Death Valley, where there was a mining prospect to be examined. We outfitted at Eureka, Nevada, and after a tedious journey of several days in buckboards we reached the last place where pure drinking water could be found. With four horses and a dead-ax wagon carrying several barrels of water we started over the desert. The desert was an oven, the trails were sandy and rocky, and our progress was consequently slow.

When we finally reached the edge of Death Valley we were shown a vein which had been represented as enormously rich. We found nothing but a "stringer," or worthless vein. A fruitless expedition, which now could easily be made by motor in ten hours, had consumed two weeks of valuable time and considerable money. But I had become accustomed to such disappointments.

Hotel accommodations were so scarce on these trips that I was usually compelled to spend the night on the ground. It was essential, therefore, to keep in good physical condition. I have spent many

years of my life traveling on horseback, on skis, and in all sorts of open conveyances. Many a time have I slept in the boot of a stagecoach on the mail pouches, where, being short of stature, I could curl up without discomfort.

One of the strange sights occasionally to be seen on the Arizona desert in the seventies was a herd of genuine Arabian camels. They had been imported just prior to the outbreak of the Civil War in an endeavor, backed by Secretary of War Jefferson Davis, to improve transportation in the desert sections of the Southwest. The undertaking failed and the camels were finally let loose. For many years they roamed the deserts of Arizona, causing as much consternation to horse-drawn vehicles as later the automobile did when first introduced on the roads. The last time I saw them was about 1880. I understand that some time after that the manager of a circus rounded up the survivors and shipped them east.

I soon found that mine was not the only government survey being conducted in the district. One stormy winter's night, after a hard day's work underground, I drove into the livery stable at Jackson. As I was putting up my horses, a young man dressed in the height of English fashion asked somewhat skeptically whether I was Mr. Hammond. I had on my mining clothes and certainly presented a formidable appearance. I was covered with mud from head to foot. After I had assured him that I was Mr. Hammond, he presented, still somewhat doubting my identity, a letter from Clarence King, asking me to render the bearer what assistance I could. This strippling had been appointed to gather statistics on the "social" aspects of mining; that is, to get full information about the living conditions of the miners, and to make notes of their experiences.

S. B.— was a young American of about eighteen, who had spent most of his life in England. I could see at a glance that he was absolutely green in the ways of western life. Since I was going to visit a deserted mining camp the next day where he could get hold of some old prospectors, I said he might go along. Accordingly, the next morning B— was on hand with detailed questionnaires, naïvely devised by some greenhorn government official in Washington.

This seemed to me an ideal opportunity to play a joke which would be harmless in effect, amusing to me, and above all educational for

him. In every not yet completely abandoned gold camp there usually remained a general store with a meager stock of groceries, overalls, miners' picks, and a balance for weighing gold dust. In these almost abandoned mining camps the one remaining saloon was the gathering place for the few prospectors who, yet clinging hopefully to the possibility of a strike, refused to leave the camp.

I explained that a saloon was a species of club for the miners, and that the best approach for B—— was to walk in, go up to the bar, turn, and say, "Gentlemen, the drinks are on me." At the same time I warned him that he would probably find the men diffident at first, but that their tongues might become loosened if he could only persuade them into drinking a little. I tipped off in advance a few of the more responsive of the old-timers, telling of B——'s mission and that he wanted them to "talk quite freely of their experiences."

The first thing my tenderfoot protégé learned was that the miners displayed no hesitation whatsoever in accepting his invitation to liquid refreshment; in fact, they nearly mobbed him in their rush to the bar. In less than a minute the glasses were emptied. B—— then went to work, most conscientiously asking the questions set down in the printed forms supplied by the government.

"What is the most thrilling experience you ever had? What famous mines did you discover?" Each inquiry seemed to offer illimitable opportunities to these habitual romancers. After a few days of hard work B—— returned to Jackson and showed me his report. He had taken down in all seriousness every statement made, and seemed inordinately proud of having collected important historical data. He had a splendid collection of stories about fights with Indians, grizzlies, mountain lions, and claim jumpers; of fortunes made and lost; of fabulously rich finds now being carefully guarded from discovery by anyone else. The only point that seemed to trouble him at all was the great number of men who claimed to have discovered the Comstock Lode and then to have been cheated out of a fair share in their ownership.

After I had gone over the statements with him and pointed out their discrepancies and absurd exaggerations, I told him he had been thoroughly taken in; that all his stuff would have to be destroyed; that he would have to make a fresh start, working from the funda-

mental principle that any prospector, however picturesque, could shame Ananias himself. Poor B—— was much crestfallen, but went to work. I heard later that he had been given another government position which he filled with credit.

While examining the mines near Coloma, on my journey north, I heard that James Marshall was living in a shack near the scene of the great discovery he had made on Sutter Creek thirty-one years before. Having lost or dissipated whatever fortune he had made in the diggings, he was now leading a miserable existence; he was poor, filthy, and drunken. I hunted him up and promised him a bottle of red-eye if he would stay sober long enough to point out the exact location of his find. He agreed, and the following day took me to the site of the mill race in which, on that famous day of 1849, he had first seen the yellow specks of gold. He did not know whether there was any gold left there, but thought it quite possible as the first miners had possessed little patience and were inclined to abandon their first diggings to rush up or down the stream to any more likely-looking location. Much interested in this opinion, I took my miner's pan and, after prospecting around for about an hour, washed perhaps a quarter of an ounce of gold from the gravel, enough for a certain wedding ring I wanted.

Marshall seemed glad to talk to me about his troubles. He railed at the state legislature which had refused to continue his pension. Merely from sentiment he had been allowed a hundred dollars a month for four years, 1874-1878, and then in a fit of economy the payments had been discontinued. The old man, quite soured in disposition, shiftless, and broken, was living on charity. For him the golden find had not turned out to be a lucky one although a tardy government finally erected a monument to him, many years after his death.

To his employer also, the fine old Sutter, the discovery had brought tragedy. I remember seeing him once on a San Francisco street car. My father pointed him out to me and then introduced me to him. He was a broken man, although in Forty-nine he had owned two Mexican grants of land, comprising six hundred thousand acres of fields and vineyards, together with mills, workshops, stock, and fine horses. Though he himself had had no interest in the gold, he had

94 The Autobiography of John Hays Hammond

been kind and generous in his hospitality to the ruthless gold-seekers. They had swept in upon him like swarming locusts laying waste his beautiful estate. He was now without an acre, although the recipient of a pension of three thousand dollars a year from the state. All he wanted, however, was his land; and his land he never recovered.

By pushing my work of mine examination at terrific speed I completed it within six months. There was then little sentiment in favor of surrendering the secrets of mining operations. The western mining man had learned the lesson of self-reliance in a hard school. Although inclined to bristle with suspicion when I began to ask questions, he would usually furnish the information freely when assured that it would be treated as confidential. As a matter of fact, I had the authority to demand the statistics, but I preferred to have them furnished willingly. Much of the required data, of course, I could collect through my own unaided observation.

With few exceptions I examined and reported on all the gold mines—quartz and gravel—from Fresno to Sierra County. I valued greatly the opportunity to keep in touch with mining prospects and to watch their subsequent development. I made a practice of revisiting those which, at the time of my first visit, I considered of potential value. By checking up on my judgment I acquired a certain hunch-sense, known among mining men as “a nose for a mine.” This is a practice that I heartily recommend to younger generations of mining engineers.

After a long day in the mines I would set off for my next destination, many times on lonely trails through the mountains and not always certain of the right path. But these lonely rides were not without compensation. At the trail’s end, usually at three or four in the morning, I would find a warming brew of coffee, a steaming plate of ham and eggs, and a welcome bunk in the cabin of some hospitable prospector.

CHAPTER SIX

Gold

HOPEFUL BILL AND HIS "FIDUS ACHATES"—
THE GREAT HORN SPOON — THE GRUBSTAKE —
ENTER THE PROMOTER — THE DISTRIBUTION
OF GOLD — WHERE WILL WE FIND MORE GOLD?



To write of mines and mining without mentioning the pros-

pector would be like writing a treatise on mathematics without using the multiplication table. A strange and solitary figure, the prospector has been the advance guard of the engineer on every frontier of the world. In the Arctic his dog team was the first to cross the glacier, and he was the first to follow in frail craft the breaking ice to the tundras of the north. In tropical jungles, his machete blazed the first white man's trail. In the far deserts of Australia and Africa his silent-treading camel was first to arrive at the new El Dorado. Prospectors were in the vanguard of the pioneers of civilization. Like other artists, they were born; mining schools seldom produced them. Nor did they come from any single walk of life. Seldom did they have their origin in the big city; ordinarily they were the children of the open spaces.

A great majority of the gold mines in the United States have been discovered not by the mining geologist, but by the "honest" prospector accompanied by his *fidus Achates* and collaborator, the burro. In this category fell that romantic figure "Hopeful" Bill. He started with a scanty food supply of bacon, sow belly, saleratus, flour, a sack of beans, some coffee, and a bottle of red-eye. A mere glance at this provision list will show why Hopeful Bill and his fellow thaumatur-

96 The Autobiography of John Hays Hammond

gists were usually dyspeptic. To these culinary items were added the essential tools of his art: pick, shovel, gold pan, canteen, and, last but not least, the great horn spoon, which was merely the hollow half-section, carved lengthwise, of a cow's horn. This grubstake Bill secured from some confiding individuals, who, in return, were to have, if and when a mine was discovered, an interest in the property.

Hopeful Bill, with his inseparable and faithful mongrel trotting by his side, was now ready to head his burro on the outrail to some yet unconquered field. The trip as a rule was long and arduous. Water was scarce, often alkaline, and never enough to satisfy his almost unquenchable thirst, aggravated by the salt sow belly and the dry saleratus bread. Unmindful of hardship, Hopeful Bill toiled on towards the rainbow's end.

He first searched for gold along the countless dry ravines and canyons where he hoped to find float rock, fragments of rock containing gold. If Bill was fortunate enough to discover float rock, he crushed it with his pole pick on a flat stone and carefully shook about half a pound of powdered rock into the spoon. Then pouring water from his canteen into the gold pan, with a dexterous motion of the wrist he stirred the spoon under the water, and by washing away the powdered quartz recovered the particles of gold. An expert prospector could detect a single particle as small as the point of a fine needle. Through long usage the great horn spoon became the acid test for native gold and led to the use of the famous oath, "I swear by the great horn spoon."

Now if Bill found gold in the float rock, he began then to search for its origin in the veins and lodes farther up the ravines. Sometimes this was the labor of months, necessitating countless testing holes and trenches. The mother lode from which the gold had been originally eroded might be miles away. But at last Bill found an outcrop which showed gold. He then took samples of ore to the nearest assayer; if of sufficient value per ton, he was able to induce his grubstake backers to finance him in sinking his shaft to a depth of a hundred feet or more. The ore thus recovered was hoisted to the surface by a windlass and piled on the dump for future treatment.

Should the prospect still look favorable, he would go for more capital with which to erect a small hoisting engine. This would

enable him to sink his shaft to a depth of two or three hundred feet and by drifts or levels to ascertain the extent of the ore-bearing vein.

If again he was fortunate enough to find a valuable ore body, he went in search of still more capital. This is where the promoter appeared, and the prospect henceforward was called a mine—a name for the promoter to conjure with. After developing the mine to greater depth and after more extensive drifting, a small mill was erected to crush the ore and to extract the gold. If this again proved profitable, a mining boom began and other prospectors, backed by yet more capital, started energetic prospecting and development upon the extension of the discovery vein or upon other veins in what had by this time become a mining district.

It was now the day of the engineer. Great stamp mills thundered night and day for months or years until at last the ore bodies petered out, the noise and hubbub ceased, and the population moved on to new fields.

But long before this, in the days of the first promotion, Hopeful Bill had sold his interests for a modest sum, and with a new outfit trekked to some distant corner of the earth, obsessed by the desire for new discoveries.

The burro, camel, dog team, and pack horse have been largely superseded today. Planes drone their way over the wildernesses of Canada and the tropical jungles of New Guinea, carrying the descendants of Hopeful Bill, still buoyed up by unending faith and indifference to dangers and privations. So it has always been, from the days of Jason and the Golden Fleece to this hour.

Mark Twain has described a mine as "a hole in the ground owned by a liar." If anyone should attempt to apply this definition to my friend, Hopeful Bill, I would challenge the characterization. Dishonesty usually entered with the promoter after the prospector had passed out of the picture. Hopeful Bill, it is true, was not disposed to minimize the value of the property he sold to the promoter. But his knowledge of mining values was strictly empirical and he should not be blamed for the promoter's overvaluation of the property.

An unscrupulous promoter once asked me to suggest a name for a certain mine not far from Tonopah, Nevada, which he was about to sell to the public. I told him it should be called *Caveat Emptor*.

98 The Autobiography of John Hays Hammond

Much puzzled at this unorthodox title, he asked me what it meant. I explained that it was one of King Solomon's mines, which answer seemed to satisfy him perfectly—for the moment at least.

The following incident, true as well as amusing, illustrates the relations between prospector and promoter. Jeff Clark, recognized for his honesty and unquenchable optimism, was one of the prominent mining promoters of our Northwest and was so liberal in grubstaking that he was regarded by prospectors as an easy mark. On one occasion he was approached and asked for a grubstake by Hopeful Bill, who said, "Jeff, you know I've a great nose for a mine, and . . ."

"How much are you going to strike me for this time?" interrupted Jeff, who was relatively prosperous at the moment.

"Well," said Bill, "I am sinking on a vein near here, and so help me God I'm within three feet of a million dollars. Now, if I had only two hundred and fifty dollars . . ."

The money was immediately forthcoming, and for several weeks Jeff did not see Bill again. Then one day he spied him in the distance on a street in Tonopah. Bill saw Jeff at the same moment and in evident embarrassment started to quicken his pace. Jeff soon overtook him, however, tapped him on the shoulder, and asked, "Bill, how's that mine of ours?"

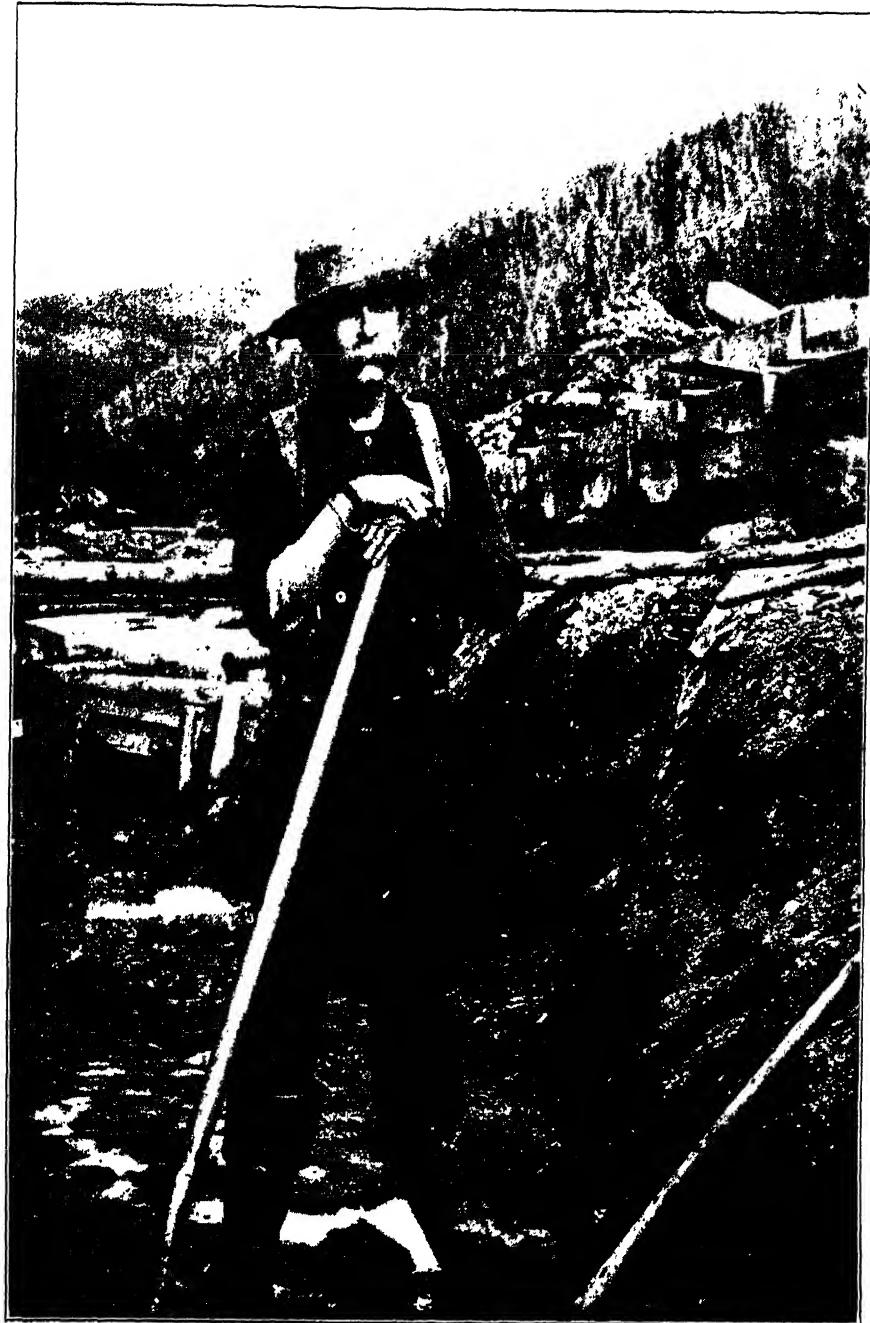
"Well," replied Bill, "last time I saw you, Jeff, I told you I was within three feet of a million dollars, didn't I?"

"You sure did."

"Now, Jeff, I'm gonna be honest with you and I'm telling the truth. So help me God, I don't think I'm within a million feet of three dollars!"

This story is not only a good illustration of the vicissitudes of miners, it once served equally well as my answer to the question, "Do you believe prosperity is just around the corner?"

It was not always the promoter who got the better of the bargain in dealing with Hopeful Bill. In his peregrinations Bill once landed in London and brought his prospect to Eugene de Crano, a colleague of mine representing the Rothschilds' mining interests there. After waiting several months to get a directors' decision, de Crano



"HOPEFUL" BILL



AT THE BUNKER HILL MINE, IDAHO, IN THE EIGHTIES

finally announced to him, "Bill, we have decided to purchase your property."

"O. K.," replied Bill. "You'll make a good thing out of it. You don't think eight thousand's too much, do you?"

"No," agreed de Crano, "we think it's a good prospect. If you'll wait a few minutes I'll give you a check for it."

De Crano disappeared into an inner office, from which he emerged to hand Bill a slip of paper. Bill's startled eyes described the words eight thousand pounds instead of the eight thousand dollars he had had in mind. Barely taking time to mumble "Thank you," he hastened in the direction of the nearest bank to convert into actuality this unlooked-for bonanza.

De Crano for his part disappeared again into his inner office, equally pleased with what he considered an advantageous bargain.

Hopeful Bill belongs to all nations and to all times. Driven by this *auri sacra fames*, this thirst for gold, throughout the centuries he has crossed all seas and circled all continents. Many people have tried to account for the overwhelming allure that has tempted him ever farther and farther. They have stressed the beauty of gold, its malleability, the ease with which it is extracted and refined, its non-corrosive qualities, and its rarity. These explanations are not entirely satisfactory. Gold has a human appeal far deeper than any physical quality inherent in it as a metal. The golden ornaments of the ancient world were beautiful and malleable and rare, but above all else they meant wealth. They signified freedom from menial toil, they represented social distinction, power, influence, and prestige. Gold furnished a firm foundation for fortune. In time, in the form of coin it came to symbolize in more convenient shape the possession of wealth. It had become more than a precious metal; it was a medium of exchange between individuals and nations. Now in the great vaults of the treasuries of the world—in New York, Paris, London—gold has been gathered together in fabulous quantities and there lies sequestered as an international commodity to form the monetary basis of currencies. Once more, as in the millennia before Christ, gold is used chiefly in the fine arts.

As a result of the active progress of archaeological exploration in recent years, large quantities of gold ornaments, many of great artis-

tic excellence, have been found among the excavated ruins of ancient civilizations, widely scattered geographically. Gold beads have been recovered which date back as far as 5000 B. C. An edict of Menes (*circa* 3800 B. C.) contains the first written mention of gold: it declares that the ratio between gold and silver should be $2\frac{1}{2}$ to 1. But the mines from which the precious metal for these objects had been obtained have been abandoned for centuries, and even the sites, with rare exceptions, have been lost from the memory of man.

Nevertheless, it has been determined that much of Egypt's gold in the days of the Pharaohs was derived from the Assouan region of Nubia lying between the Nile and the Red Sea. Subsequently these same mines furnished a large portion of the revenue of the Ptolemies. This gold was produced by slave labor working under appalling conditions. The recent discovery of Tutankhamen's tomb, with its fabulous golden sarcophagus and its golden ornaments, indicates, as T. A. Rickard states in his interesting book, *Man and Metals*, that the cumulative efforts of countless thousands were required to produce the funeral equipment of one man.

Other sources of ancient gold were discovered by me in Matabeleland and are discussed in a later chapter.

It is estimated that the total production of gold in the world, since the discovery of America in 1492, is one billion ounces, valued at twenty billion dollars. About half of this has been produced since 1848. The Transvaal, Australia, the United States, Canada, and Russia combined have contributed more than one-half of the total. Since a large part of the gold has been used in the arts or lost, about ten billion dollars remain as the monetary basis of the currency of the world.

If all this gold were melted in one huge lump, it would make a cube of solid gold measuring thirty-eight and a half feet. But to extract this relatively small amount of metal from the auriferous gravels and gold-bearing veins it was necessary to mine, as a conservative estimate, enough earth, gravel, and rock to cover the fourteen thousand acres of Manhattan Island to a depth of three hundred feet.

It was on his second voyage that Columbus carried back to Spain the first gold from the Americas, which he had obtained in the north-

ern part of Santo Domingo. Even today natives occasionally extract nuggets of gold from the same placer deposits.

The date of the first actual discovery of gold in the territory comprising the United States is not positively known. In 1513 Ponce de Leon, while seeking the elusive fountain of youth in what is now Florida, heard rumors of the existence of gold to the north; about fourteen years later Narvaez saw gold in the possession of the Indians, who indicated that it came to them from far in the interior. Over three-quarters of a century later, in 1608, the first Virginians, according to their instructions, looked for gold and discovered a bank of dirt in which were embedded countless yellow particles. Madly abandoning all more practical preparations for the coming winter, the colonists collected a cargo of the rock to send to London. The sad news ultimately came back that the apparently valuable ore was nothing but iron pyrites, or fool's gold. The coop of turkeys, which went by the same boat and were the first to reach Europe, was a far more valuable present to the Old World from the New.

North and South Carolina began to produce gold in small amounts late in the eighteenth century, and gold was discovered in Georgia in 1829. These were very small deposits, however, and the total production of gold in the United States before Marshall's California strike of 1848 was worth only the relatively insignificant sum of twenty million dollars.

Although there still exist gold-bearing veins in many parts of the eastern states, with few exceptions it is not possible to operate them at a profit. Near the city of Washington, for example, shafts have been sunk along the highway to Great Falls on the Potomac. These have reached well-defined quartz veins which occasionally produce fine specimens of gold, but the cost of obtaining the metal is prohibitive.

The West has been the real source of the United States' gold supply. It was fortunate that Marshall's discovery of gold was made after California came into the possession of our country. Had it been discovered earlier, there would have been an inevitable conflict between the United States and other nations for the territory.

The principal gold-mining districts of California extend along the western slope of the great Sierra Nevada Mountains at an altitude

above sea level of from a few hundred feet to upwards of eight or ten thousand feet. The auriferous gravels—the placer deposits, as the miners called them—were developed first. The gold-bearing constituents of these gravels had come from the gradual disintegration of gold veins or lodes by atmospheric agencies and by erosion. The resulting debris had been continuously carried downstream and deposited along gulches, bars, and flats. The first mining of these gravel deposits by rockers, long toms, and sluices was of a most primitive character. Gold in gravel deposits occurred usually in fine particles, sometimes so infinitesimal that several hundreds of the gold flakes were worth only one cent. The size of the nuggets in the gravels varies from a fraction of an ounce to several pounds.

Occasionally much larger nuggets have been discovered elsewhere in the world, the most famous of these being the Welcome Stranger from Moliagul, Victoria, Australia, which had a gross weight of 2520 ounces, contained 2284 ounces of gold, and was worth approximately fifty thousand dollars.

In 1854 a mass of gold weighing 2440 troy ounces and valued at forty-five thousand dollars was found near the outcrop of a vein on the Mother Lode at Carson Hill, California. Nuggets with a value of several hundred dollars have frequently been found in California.

It was in pursuit of gravel-mining operations that gold was eventually discovered *in situ*, that is, in the quartz veins or lodes. In the last several decades the bulk of California gold has been obtained from these quartz veins, although an appreciable amount still comes from the operation of gold dredges on the flats and along the river courses where the original Argonauts operated.

From a production of two hundred and forty-five thousand dollars in 1848, the gold output of California rapidly increased until the banner year of 1852 when it reached the enormous figure of eighty-one million dollars. From that time production greatly declined, until by 1913 it had fallen off to about ten million dollars annually. The grand total of gold produced in California from 1848 to 1932 is estimated at one billion eight hundred million dollars.

Following the discovery of gold in California, gold-mining districts were developed in many other parts of the territory west of the Mississippi River. Among the famous gold-mining camps in the

1860s was the Comstock Lode in Nevada, the ore from which carried about forty-five per cent in gold and fifty-five per cent in silver. After attaining a depth of thirty-three hundred feet, the operations ceased to be profitable and were for the time abandoned, having produced roughly nearly four hundred million dollars, almost half of which was gold.

Three years after the California gold rush, a prospector named Hargraves went to New South Wales. Impressed by the similarity of the outcrops there to those he had seen in California, he tested a few specimens and found them rich in gold. Since that date Australia has contributed three and a quarter billion dollars to the world's gold supply. The rate of production declined rapidly, but in recent years, owing to the appreciation of gold, mining activity has been revived and Australia is again becoming an important factor in the world's gold production.

Although gold was discovered in Alaska in 1880, its major output, amounting to nearly four hundred million dollars, did not begin until the Alaska gold rush in 1898. Here, too, the production has recently fallen off considerably.

Russia also has been one of the important gold fields of the world. During the past two hundred years it has yielded about one billion eight hundred million dollars, or almost the same amount as the State of California produced from 1848 to 1932.

The great source of gold in recent years has been the Witwatersrand of the South African Transvaal. Out of the average world production of four hundred million dollars during this period, it has supplied virtually one-half.

Economists have long been concerned about the future gold supply. This is, indeed, of more than academic interest. Whether the present supply is to be maintained, increased, or diminished is of supreme economic importance. Five years ago the Economic Council of the League of Nations, recognizing the grave danger attached to a static or declining gold production, appointed a special committee to investigate this vital question. Late in 1930 this committee reported that, except in the improbable event of new and large gold fields being discovered, "gold production would start to decline about 1934, and would by 1945 be greatly reduced."

My own conclusions are in line generally with this report, although I do not anticipate any such rapid decrease in gold production in the near future. On the contrary, a temporary increase is not improbable as a result of the increased price of gold in terms of dollars. This opinion is based on examinations made under my direction, supplemented by reports of my confreres. These cover nearly every part of the habitable globe, not of course in detail, but in sufficient scope to warrant the opinion that there exist no new potential fields to furnish a supply of gold commensurate with requirements even in the near future.

It is true that the increased price of gold from \$20.67 to the present fluctuating price somewhere in the neighborhood of \$35.00 will result in the extraction of ore bodies of lower grade than previously could be mined profitably. This will give longer life to many gold mines, but even then the gold output will not amount to the economists' estimate of the annual increase in production of three per cent required to meet the demands of future expansion in industry and commerce unless the price of gold is enhanced and maintained by governmental decree.

As before mentioned, the mines of the Transvaal now produce about one-half of the world's gold supply. Mining engineers familiar with operations in that field are not only of the opinion that the peak of its capacity has been nearly reached, but they think that in the future there will be a marked decrease in its gold output. More roseate predictions have recently come from the Transvaal based on the possibility of extended ore deposits. Although these may indicate the opening of an important, newly discovered gold-bearing area, as yet there is no substantial basis for assuming that these discoveries indicate that the life of the district is to be long extended.

There is one further source of gold which offers potentialities of tremendous import. It has been estimated that the oceans of the world contain a gold supply equivalent to about fifty million dollars for each person of the two hundred billion population of the world. However, all attempts thus far to extract the gold at a profit have failed.

Analyses of sea water always reveal traces of gold. The largest

percentage amounts to only four grains to the ton of water, which was obtained from great depths in the Atlantic. As an exception, however, gold to the extent of eleven milligrams per metric ton, or roughly seven cents per ton, has been found in the waters of the Bay of San Francisco. Sea water from the coast of New South Wales has been estimated to contain from one-half to one grain of gold (two and a half to five cents) per ton.

In the 1890s with Dr. A. von Gernet, a distinguished Russian metallurgist, I conducted a series of investigations off the coast of South Africa, not far from Cape Town, to determine the gold content of sea water at that place. Although we used automatic machinery in so far as possible, the amount of gold we recovered was far below that requisite for economic production.

Sea water contains many minerals in addition to gold. A plant has been erected recently in the mouth of the Cape Fear River in North Carolina for the commercial extraction of bromine from sea water. The chemist of the company owning the plant has stated that "while the gold in sea water is present to the extent of but a few parts per billion" he does not regard it beyond reason to expect the chemists of the next decade to extract gold commercially from sea water. This possibility remains so far distant in the fields of conjecture that it will offer no deterrent to the current development of the world's gold-mining industry or discourage the gold-mining engineer.

CHAPTER SEVEN

Old Mexico

A SHAVE, A HAIRCUT, AND A WEDDING TRIP — CHANCE TAKES ME TO MEXICO — BY STAGECOACH, SAILBOAT, HORSEBACK — “IRISH DIVIDENDS” — TRAINING MY BODYGUARD — BESIEGED AT MINAS NUEVAS — FRANK AND DUTCH JOHN

*A*fter finishing my gold mine examination for the Geological Survey, I went to Virginia City, Nevada, and submitted the report to Dr. George F. Becker, who was Clarence King's western representative and was at that time making a geological examination of the Comstock Lode. Becker complimented me on the fact that I had covered so much territory in such a short time. He well knew the reason for my expeditiousness; the sooner I finished, the sooner I could be married.

Without waste of time I set out for Hancock, Maryland, where my bride-to-be was staying with her married sister. In Chicago, Ned Ryerson and Jim Houghteling, whom I had not seen since the old Yale days, took me in hand and helped select a ready-made dress suit and other necessary apparel. I reached Hancock the evening of December 30, 1880, and immediately went looking for a barber to remove my Forty-niner's beard. The only one I could find was a negro, who, except for the fact that he was just recovering from delirium tremens, was very highly recommended.

The barber was obviously shaky, but I had no alternative. The beard had to be removed. Laying down a five-dollar bill, I put on

my fiercest expression and said, "Jim, here's five dollars for you if you'll give me a haircut and a shave without cutting me, but if you so much as scratch me with your razor, I'll . . ." with a significant movement towards my hip. Either the promise or the threat steadied him long enough to perform the operation satisfactorily. When the story came out later in a New York paper Jim was said to have fainted as his fingers closed on the bill, but as to that I cannot say—I was already on my way down the street.

On January 1, 1881, Natalie Harris and I were married. We went at once to Washington, where General Sherman had secured rooms for us at army rates at the best hotel, a delicate attention which I much appreciated. James G. Blaine was also very kind to us, as were many friends of our families then resident in the Capital.

The high point of our stay was a dinner given us at the White House by President Rutherford B. Hayes, who had been entertained in California the year before by my father. Mrs. Hayes was a strict teetotaler and never allowed liquor to be served in the White House—though the President at times was slightly humid. The only relief to her perfectly dry dinners was the appearance of the rum-flavored water ice called Roman punch, which came on about the middle of the meal and contained a generous quantity of the liquor. A hardened old senator once named it "the life-saving station." Mrs. Hayes was kept in ignorance of the wicked properties of her Roman punch, for the butler always served her a specially prepared and innocuous mixture. William M. Evarts, the secretary of state, said that at the White House banquets during the Hayes administration "water flowed like champagne."

My youngest sister, Betty, then at boarding school in New York, visited the White House later and found the presidential family most kind and amiable. Fanny Hayes, about the same age as my sister, blithely accepted her as a companion. Betty was escorted from her school to the President's private car by General Alexander McDowell McCook, military aide to President Hayes. During the journey to Washington a newsboy brought in a copy of *Puck*, which nearly always contained cartoons of the President. This number showed a highly colored cover picture which Betty felt sure must prove absolutely devastating to each and every Hayes, but to her surprise both

the President and his wife laughed heartily and seemed actually to enjoy the jokes on themselves.

Life at the White House in those days was extremely simple. Since Garfield was coming into office the next month, the Hayes family were entertaining for the last time a few of their friends from Ohio. The household breakfasted together, President and Mrs. Hayes almost always appearing. After breakfast it seemed the established custom for visitors to stroll sedately through the conservatory until summoned upstairs to the President's study, where he and Mrs. Hayes read prayers and a chapter from the Bible. From then on, entire freedom was the order of the day.

Betty enjoyed herself greatly. She took an artless delight in jogging around Washington in hired "herdics"—those quaint little conveyances named for their designer, Peter Herdic. Another of her favorite sports, in which the youngest of the Hayes boys sometimes deigned to join, was sliding down the banister of one long flight of stairs. On Saturday night everybody played hide and seek—the President and Mrs. Hayes and all the family and guests.

Fanny Hayes was extremely reluctant to leave the White House and my sister recalled very well her remark, delivered with a huge sigh, "Well, soon Molly Garfield will be prancing around here."

My bride and I went from Washington to New York where we were shown gratifying attention by more of our friends. It was at a dinner party for us given by D. O. Mills that he announced the engagement of his charming daughter to Whitelaw Reid. Then I had to go back to California and resume work.

While in New York I had met Alexander W. Stoddard, later one of my good friends. On the recommendation of his nephew, he had invested heavily in a mine and afterwards had become uneasy about it. He commissioned me to make an examination for him on my arrival in California, and considerately offered payment in advance. The commission I accepted eagerly, but the payment, I told him, I would not feel justified in taking. Although I needed the money badly, since wedding trips are expensive, I considered it bad policy to be paid before I had actually earned the money.

Immediately upon reaching San Francisco I went to Grass Valley where the mine was located. I made the examination, wrote my

report, and handed a copy to Mr. Stoddard's nephew. He read it carefully and then said: "Your report is not very complimentary to me. You make me out either a damn liar or a damn fool; which is it?"

I replied, "You've read it—you ought to be able to decide for yourself."

When Alexander Stoddard received the report, he paid me the kind of compliment most pleasing to an engineer: "Hammond can be neither bluffed, bamboozled, nor bought."

And so I felt I had earned the promised five hundred dollars, my first fee as a mining expert.

During the first half of 1881, I was kept profitably employed making examinations of mines in California, Nevada, and Arizona. In the fall I succeeded in securing a position with the Vigorite Powder Company for which my brother Harry had just won an important lawsuit. As their consulting engineer I learned much about the use of various kinds of explosives and costs of manufacture. Among other things, I discovered that the majority of mining companies were using powder containing too high a percentage of nitro-glycerine, which increased the cost of blasting; also that high-grade explosives were not as efficient in mining certain classes of veins as were those of lower grade. The use of this knowledge later effected a considerable saving in the cost of explosives in mines in which I was interested.

For a beginner I had had great luck so far. Now, the word "luck" may seem a peculiar one to use in connection with a profession relying so largely upon scientific method and exactness. These, of course, are fundamental requisites, but the element of luck—or fate, or whatever it may be called—does play an important part in any individual's life. This same element of chance brought me to Mexico early in my career.

Certain American mining investors had decided to seek out opportunities across the border, disregarding the shifting character of the Mexican governments, which, despite the ability of Benito Juarez and Porfirio Diaz, were on the whole weak and disorderly. This well-known group of mining engineers included Henry and Louis Janin, who had been at Freiberg about ten years ahead of me. They

had purchased a mining property known as Minas Nuevas, a few miles from the town of Alamos in the State of Sonora. Through Louis Janin I was offered, in 1882, the managership of this property.

Since reports of the manager of the mine had been most favorable, this seemed a chance for me to make a reputation through the successful handling of a valuable mining property. Furthermore, I should be able to see for myself what opportunities might exist in Mexico. I knew that the country itself was still almost inaccessible, and the political conditions were chaotic. After one term President Diaz had been obliged to give way to Gonzalez: the constitution of the moment forbade consecutive terms. During this interregnum I should inevitably be exposed to real personal danger as well as physical discomfort. I did not mind this half so much as I did the necessity of leaving my family behind, although I knew young engineers had to endure such separations. After considering the proposal from all these angles, the business prospects still remained alluring, and I accepted.

In April, 1882, our son Harris was christened by Bishop Kip, who had also officiated at the wedding of my mother and father. A few hours after the christening I left San Francisco by train for Tucson, my point of departure for Mexico.

From Tucson there stretched before me a trip of several hundred miles to Guaymas, Sonora, the greater part of which had to be made by stagecoach. The first news which greeted me as I stepped from the train at Tucson was that the stages had been obliged temporarily to stop running because of recent activities of the murderous Apache who roamed about Arizona. Soon the route was judged safe—or as safe as it was likely to be for some time to come—and a small party of us set forth for Hermosillo.

Opposite me in the stage sat a wounded Indian—not an Apache. The poor fellow had been a workman in the construction of the railroad which was being carried on from Tucson to Guaymas, and had had his hands badly mutilated by a premature blast. With his hands in splints and fastened across his breast he was absolutely helpless. My fellow travelers and I took turns giving him food and from time to time pouring a little water into his mouth.

During the course of the day an American drummer, who was already intoxicated when we left Tucson, became more and more of a nuisance. He was cheeky and offensive in his language and he enraged me by tormenting the poor Indian. By the time we stopped late in the afternoon to change horses, the limits of my patience had been reached and I made him get out and sit on top of the coach, using a pistol as the most persuasive argument. He took his bottle with him. As we drove along it became increasingly evident that the drummer had found a drinking companion: the coach began to plunge and lurch from side to side, and there was nothing for us to do but trust in Providence.

I was endeavoring to get a little sleep when I was aroused by a violent shock followed by the splash of water in my face. We had finally capsized in the stream bordering the road. It was dark by this time, and we did not know how deep the water might be. Fortunately, the stream was shallow and we were able to wade ashore. When I had collected my wits and we had fished out a lantern and lighted it, I asked what had become of the wounded Indian. After searching for a few minutes we located him under the stage. Although we succeeded in extricating him, he was suffering terribly, probably from internal injuries, and died during the night.

One consoling feature of the accident was the condition of the drummer. When the coach capsized he was thrown some fifteen or twenty feet out into the stream where he lighted on his head. When he emerged, dripping, with several front teeth knocked out, he was sober beyond recognition.

We dared not attract the attention of marauding Indians by building a fire, so we just sat around, wet, cold, and disconsolate, for the rest of the night. To add to our troubles, the drummer dinned into our ears dire threats of what he was going to do in the way of bringing damage suits against the stage company because of injuries and probable loss of pulchritude. We all stated positively, however, that we would give no testimony in his favor. When daylight finally came, we contrived with considerable difficulty to upright the stage and resume our journey. Nothing more was ever heard from the drummer after we dropped him at one of the stations along the road.

At Hermosillo I presented a letter of introduction to Señor Carlos

Ortiz, then governor of Sonora. This call was no mere formality; it was highly necessary for those operating in the country to maintain friendly relations with the ruling political powers. From Hermosillo I went by rail to Guaymas on the Gulf of California and arrived there just in time to secure passage on a small Mexican schooner which was carrying mining machinery and dynamite to one of the ports farther down the coast. My own destination was Agiovampo, which, under a fair wind, would have been reached in two or three days. We were becalmed, however, and for five days floated around helplessly in sight of Guaymas.

Since there was no cabin on our primitive boat, I slept every night on deck under the wonderful glow of a starlit heaven such as those who live to the north of the Rio Grande seldom see. During the day I spent my time swimming, rowing about, or even making occasional trips to the shore to shoot birds. One morning, as I was about to dive off the bow, there came a wild cry of "Tiburón!" from the natives standing near me. Something in their tone made me gather that my prospective dip did not altogether meet with their approval. I looked around inquiringly and one of them pointed to the water. There I saw an enormous shark standing by and fairly licking its chops at the sight of me. I did not swim that morning.

After a voyage which took three times as long as it should have taken, I arrived at Agiovampo and went on horseback to the mine, about eighty miles away. It was good to feel a horse under me again, and to know that I was getting somewhere at last. On arrival I presented my credentials to my predecessor, an irascible old German named Konstantin Heusch, whose temper had not been improved by many years' residence in those lonely parts.

Of course, I was eager to go over the mine at once, but Heusch was obviously reluctant to have me see it. Since I knew the mine was only about a mile up the slope of a mountain from where the mill, smelter, office, and rest of the plant were located, I was irritated and somewhat puzzled by the excuses the man made to delay my examination. Late on the day after my arrival, however, the foreman of the mine came down to the office on business and, without further ado, I accompanied him back.

Upon my return to the mill, Heusch reproached me bitterly, saying

that this was a most unethical procedure on my part, and one which placed him in a highly undignified position. Of this there was no doubt, for it had needed but a few hours' examination underground to convince me that the mine had been "gutted." The bonanza, from which some very rich ore had been taken, had been practically worked out and nothing was left but a shell of a mine.

Although not of a suspicious nature except when examining mining properties, I was bound to wonder whether Heusch's disinclination to have me make a prompt examination did not proceed from a plan to commit me first to a favorable impression based on his own accounts of the property. In fact, this was exactly what he had intended, for it subsequently developed that he was making every effort to get rid of the stock he then held in the company before the inevitable exposé.

Indeed, it afterwards came out that on the very day I arrived he actually sent a telegram to the president of the company, informing him that I was enthusiastic over the outlook. At the same time, through an accomplice who also held some of the stock, he was endeavoring to give his associates the rare "opportunity" of buying his own shares, "which he reluctantly had to part with in order to carry out the development of another property" he owned.

I spent several disagreeable days with the slippery old fellow going over his accounts, which consisted mainly of odd scraps of paper kept in a tin cracker box. In the course of my attempt to learn their contents, he made himself so offensive that I was finally obliged to give him twenty-four hours' notice to pack up and leave. He blustered and said he would go when he was good and ready, or words to that effect. But he decided to go at once when he saw that he had to choose between my offer of a mule and a walk of two hundred miles to Guaymas.

As soon as Heusch reached San Francisco he went to the Janin brothers and reported that I was incompetent. In every way possible he endeavored to discredit me, and succeeded to the extent of prevailing on Henry Janin to use his influence to have me dismissed as manager of the mine. But Louis Janin, on whose recommendation I had been selected for the position, was my able defender. With my

fighting spirit roused, and counting on Louis Janin's support, I made up my mind not to retire.

A mining engineer named Bartlett was sent from New York to ascertain the true state of affairs. His report commended my work, and I had no further difficulty in establishing myself firmly in the confidence of the dominating faction of shareholders.

At the outset of my first big opportunity I had a gutted mine on my hands. Realizing the seriousness of my position, I went to see the company's agent, Señor Tomas Bours, at Alamos. He told me frankly that, since the company had exhausted its credit, he did not feel justified in advancing money for the next week's payroll. By a happy chance, however, this same agent had known my father in the old California days. On the strength of my father's reputation for absolute integrity—which has often been of service to me in various parts of the world—the agent offered to lend me several thousand dollars to cover the payroll until I could get assistance from headquarters in New York. A fortnight elapsed before this assistance came, since telegrams had to be sent by messenger on horseback to the nearest station, more than two hundred miles away, and thence forwarded to New York.

It required considerable correspondence on my part to convince the outraged directors of the sort of dividends they could expect from their mine in the near future. In the parlance of the day, their returns would be nothing but "Irish dividends," in other words, assessments. I proposed to shut down the mill for a while and to undertake a system of underground prospecting in order to discover new ore bodies. The ore occurred in small lenticular, or lens-shaped, masses, and what there was of it was high grade. With the grudging assent of the owners I went ahead with development work, and after a few months succeeded in opening up new ore.

With the exception of the mine foreman and the metallurgist, the employees were Mexicans and Indians. Consequently, my life for the next few months was decidedly uncongenial, and I managed to endure it only because I was absorbed in the task at hand. I was fortunate at least in having decent quarters in a large two-story hacienda which had been built by the Ortiz brothers before they sold the property to the American company.

One of my first tasks was to learn Spanish, or, properly speaking, Mexican. Fortunately for my purpose, there was in Alamos an old Californian who had married a Mexican woman. Since his señora was somewhat fiery of temperament, he was glad to live with me, and under his tuition I acquired a good working knowledge of the Mexican language. After remaining with me for nearly two years, my poor instructor met a most unfortunate end. On the old man's departure, I had presented him some money, which made him a marked man in Alamos. He was promptly murdered, and it was believed by his friends that his wife, unlike Caesar's was not above suspicion.

One morning soon after my arrival I was stopped on my way to the mines by a young man, patently American, who asked whether I was the manager. He then said he wanted a job. I inquired as to his accomplishments, and he replied that he was an assayer and could speak Spanish fluently. After studying assaying at Los Angeles, he had accompanied a party of mining promoters to the State of Sinaloa. When he had made a number of assays for them they left him with the promise to send him his fee. They had failed to do this and he was now destitute.

I was so favorably impressed with the manner and appearance of this fine-looking fellow—only a few years younger than myself—that, while I could not give him a regular position just then, I offered him seventy-five dollars a month to help me in connection with certain examinations I was making at the mine. Later, when operations should get fully under way, I would pay him on the basis of the value of his services. He accepted my offer, and introduced himself as Victor M. Clement. I was glad of his company, and invited him to stay with me at the hacienda, and thereafter when the day's work was done I taught him geology and metallurgy, the theory and principles of which were still fresh in my mind from Freiberg days.

Clement was ambitious; he bought all the books I recommended and studied assiduously. Minas Nuevas itself was a splendid school in which to acquire a practical knowledge of mining. Since our laborers were entirely ignorant, I was compelled to supervise virtually all mining operations and this gave my young protégé the opportunity to observe them from every angle.

A few months after Clement's arrival I was compelled to discharge the mine foreman. I gave Clement the position and put him in charge of the underground workings. Between us we had the actual direction of the metallurgical operations, which embraced a great many different methods of treatment of ores, and consequently Clement soon gained a well-rounded knowledge of the profession. When I resigned my position, I had him appointed as my successor.

Within a brief period, therefore, Clement found himself, through his own industry and persistence, in a highly responsible situation. I had grown to like him and esteem him so highly that I kept in touch with him, and in subsequent years he went with me on many mine examinations. He served under me at Grass Valley and in 1886, on my recommendation, was appointed manager of the Bunker Hill and Sullivan in the Coeur d'Alene district in Idaho, where he played a leading part in the great labor war of 1892. A year later he accompanied me to South Africa and shared my experiences there. On returning to America he obtained a highly profitable position and continued to rise in his profession until his untimely death in 1903.

I have digressed to outline Clement's career because it so strikingly points a moral and adorns a tale: a young man of intelligence recognized opportunity, and through integrity and application rose to wealth and fame and the achievement of enduring works.

I soon saw that my original hope of making a reputation in Mexico through the handling of a rich property was impossible of attainment. Instead, I was forced to undertake the much less attractive enterprise of so managing a poor property as to keep it from costing the owners too much. My real job was to pull chestnuts out of the fire. However, adversity does have its uses. The isolation of Minas Nuevas, the difficulties of transportation, and the poor returns forced me to use my ingenuity in making the most of primitive and inadequate equipment. Also, I had to solve the problem of labor among a people unaware of the virtue of work, and in a society politically unstable.

A great portion of the Sonora mining district is composed of mountain ranges which even today are largely inaccessible except on horseback. In the early eighties this region swarmed with Indians, revolutionists, and bandits of every sort and description. The revolutionists made up in picturesqueness and local color what they lacked

in military discipline. The young gallants in particular considered themselves irresistible in their expensive felt or straw sombreros, richly embroidered with silver braid, and their silver-plated spurs. To a benighted gringo the rest of the attire was somewhat reminiscent of Kipling's *Gunga Din*:

The uniform 'e wore
Was nothin' much before,
An' rather less than 'arf o' that be'ind.

After I had politely but firmly declined to entertain the suggestions of certain of my less desirable neighbors for a share in the product of the mine, frequent threats were made upon my life. In order to take every precaution, I hired fifteen Yaqui Indians and organized them as a bodyguard. First, I supplied them with rifles, and then taught them how to shoot. At that time only the well-to-do classes in Mexico possessed guns, the usual native weapon being a cross between a sword and a meat cleaver which they called a "machete." Clement was an excellent shot, and I had been familiar with the use of firearms from boyhood. After the Indians had had a little practice under our instruction, we began to feel reasonably safe.

It was not long before our army of fifteen Yaqui, two American employees, Clement, and I were put to the test. The revolutionists had withdrawn in high dudgeon after my refusal to reward them by a "consideration" for the privilege of letting me live. When the colonel rode up one morning at the head of his regiment of a hundred or more, and proceeded, after duly deploying his men, to lay siege to our house, we were scarcely taken by surprise.

As soon as his forces were arranged, he sent word that he regretted the necessity of levying a prestamo—forced loan—upon us, but it was essential for him to procure corn for his horses and arms for his troops. In particular, he inquired whether we had a supply of arms. I replied that we were very well armed. The colonel then amiably suggested that we lend him our rifles in order that he might protect us from the Yaqui Indians then in revolt, who had hostile intentions towards us. I hastened to assure him that he need have no concern whatever about us; we felt quite adequate to the task of defending ourselves. His next move was peremptorily to demand our supply

of weapons. I declined to give them up, whereupon the colonel sent word that he would come and take them by force. I replied that we were ready for him, and asked who would be the first to step over the dead line which, in this case, was a high adobe wall surrounding the hacienda.

Our appearance was, indeed, formidable. In addition to our barricade, we had mounted several locomotive headlights with which we were able to sweep the surrounding country after nightfall. Furthermore, we carefully allowed the secret to leak out that, concealed all about the premises, were dynamite caches which could be exploded by an electrical apparatus. This extraordinary preparation for warfare made such a decided impression that, after several days of blood-curdling threats and a few potshots to let us know they were beaten but unbowed, the disconsolate patriots moved off and left us free to continue our labors.

As time went on, one of our chief difficulties was to prevent the rich ore from being stolen. It made so irresistible an appeal to the light-fingered gentry of the vicinity that sometimes sacks would be abstracted on the way from the mine to the mill. A little quiet investigating showed that there were in the neighborhood several small arrastres operating on the ore stolen from our mine. I made haste to establish friendly relations with the jefe politico, or mayor, of the little mining village of Minas Nuevas.

It so happened that he was called Juan, the Spanish equivalent for my name. On the strength of this fortunate coincidence we swore eternal friendship, and general offensive and defensive alliances which were then celebrated convivially, as was the custom, in our observance of San Juan's Day, June 24th. Shortly after, I was honored by an appointment as "special constable" and proceeded to fulfill my duty to the public by raiding the arrastres and recovering the hard-won ore which belonged to the company. The jefe politico then gave the captured thieves the choice of being shot or serving in the army. If the company desired, however, it could have the rascals locked up in the calaboose, on condition that it agree to defray the expense of providing a special guard, food, and necessities for the prisoners. Needless to say, we did not avail ourselves of this privilege.

Even in such an out-of-the-way corner as Minas Nuevas, tramps would occasionally appear looking for work. It is really unfair to call them tramps, since they were usually prospectors out of grub and out of cash. Their sole object was to work their way back to the States where they might get together enough money to enable them once more to set themselves up in their precarious and adventurous business of prospecting.

Two such men presented themselves one afternoon at the mines. It was at once evident that both had footed it for many miles. Dirty ragged shirts and Mexican linen pantaloons were their sole coverings. On their feet they wore garauches, a type of sandal made of stout sole-leather and held on the foot by thongs between the toes. Never did I see two more abject-looking Americans. Moreover, they were suffering from calentura, a fever then prevalent in the lower parts of Mexico.

To their request for employment, I replied that I was familiar with their kind; that I knew they would work only two or three days and would then be off. But they were such sad-looking specimens that I did not have the heart to turn them away: I told them to get some supper at the cookhouse and turn up for work in the morning. These men stayed on the job for several months; they even took a contract in the mine and saved up several hundred dollars before going prospecting again. The family of one of them, I afterwards learned, was one of the most respected in Maryland.

The later story of these two—known as Frank and Dutch John—shows how again and again one crosses the trail of former associates in the mining world.

A few years after I had left Minas Nuevas, and had established my office in New York, a client asked me to see a man who had a bonanza to sell in Arizona. Much to my surprise, the man was Frank. Although he seemed somewhat embarrassed when he saw me, he proceeded to expatiate on the value of the property. So sure of his proposition was he that he offered to put up a thousand dollars as forfeit if, after examination by my client's experts, the mine proved not to be up to his representations. I asked for a few minutes' private conversation with Frank and took him into the next room.

"Now, Frank," I said, "you know me, and you know you can't put up any job on my clients. You'd better save your thousand dollars and sell the mine to somebody else."

"No, Mr. Hammond," he answered, "you're wrong. This is a good mine, and I'm perfectly willing to put my thousand up."

Convinced that he was honest, I recommended the deal subject to my report after examination.

I went first to Colorado to look at some properties, and then continued on to Arizona and to Chloride, where Frank's mine was located. On the stage I rode, as I liked to do, with the driver, because I have found that a stage driver usually knows a great deal about the people and places in his district and is always willing to talk. As we drew near a certain hill he pointed out a dump and two or three buildings near by, which, he said, represented a mine owned by this man Frank and two partners. He further informed me that, while Frank was in the East, his partners had dug out the ore, a rich chloride of silver, and had departed with it for points unknown.

Upon reaching the mine, I found Frank greatly troubled. My examination disclosed a pocket formation of silver chloride, but the stage driver had been right in his assertion that it had been thoroughly gutted. Under the circumstances I felt I could not hold Frank to his agreement about the thousand dollars; I returned it after taking out only enough to pay my actual expenses.

Only a few months later, on my way back from an examination in the Sierra Madre Mountains, I made a side trip to Cusihuachic to see a new process invented by E. Russell, a Yale collegiate. The process was being successfully used in the treatment of exceptionally "rebellious" ore. On arriving at "Cusi," I went to a little Mexican adobe hotel, which I found quite deserted, the attendants and, in fact, the entire village having gone to a cockfight. From past experience I knew that no hotelkeeper would be forthcoming to give me my much-needed meal and bed until the fights were over.

The manager of the mine was ill but there was a note from him asking me to present myself at the mine shaft at five o'clock the next morning, when his foreman would take me down. To my astonishment, the foreman was none other than Dutch John.

"Well, Dutch," I asked, "how are you? And how do you happen to be in Cusi?"

"I'm fine now, Mr. Hammond," came the reply, "but about a year back, in Tucson, a man tried to get me and I beat him to the draw. They don't like killings in Tucson, so I thought I'd be better off this side the border. Nobody's come after me yet, so I guess it's all blown over."

I then told him what I knew about Frank and asked what he could add to my account.

"Yes," he volunteered sadly, "Frank's dead. You remember those bandits that held up a railroad train in Arizona about a month ago and got away with the Wells-Fargo box? Frank was one of 'em. The sheriff and a posse followed 'em into Mexico, and then the greasers chased 'em."

"But Frank wasn't the kind of fellow to go robbing express cars."

"I know he wasn't. Frank never had the makings for a job like that. I'll bet he just stumbled into the middle of their plans when he was pullin' out o' that mine bust. He always was a great guy fer stumblin' into the wrong places. The yell-a snakes couldn't let him go because he knew all their water holes. So they yanked him along with 'em."

"How do you know?" I queried.

"Why, the place is just over there aways. Somebody tipped off the greaser posse where they was and they surrounded the shack. The bandits were ready for 'em—plenty of grub and plenty of lead. Like as not they'd be shootin' it out yet if the Mexicans hadn't smoked 'em out by settin' fire to the shack. They all come out with their guns in their hands, but the posse dropped 'em all."

"But how do you know Frank was in the fracas?" I inquired.

"I'm sure, all right," Dutch answered heavily. "I saw his boots. You know Frank was always particular about his boots when he had money. He had 'em made special off east somewherees and the heels was smaller and higher than any man's I ever seen. After the shootin' they brought the bodies in here on the backs of burros. The heads was covered but I saw Frank's boots stickin' out. A man can't make a mistake about his pardner's boots."

"But Frank wouldn't of done no robbin', Mr. Hammond." Dutch

seemed to be gathering his slow wits for a final vindication of his old comrade. "Nor no killin' either. Why, Frank wouldn't even of shot a greaser!"

I was distressed to hear this circumstantial tale, but the matter soon passed out of my mind. Some fifteen years later, after returning from South Africa, I gave a lecture at Johns Hopkins University on King Solomon's mines. After the lecture, President Remsen introduced me to many people as they filed past and shook hands with me. Among them was Frank!

"Why, Frank," I said, "I thought you were dead."

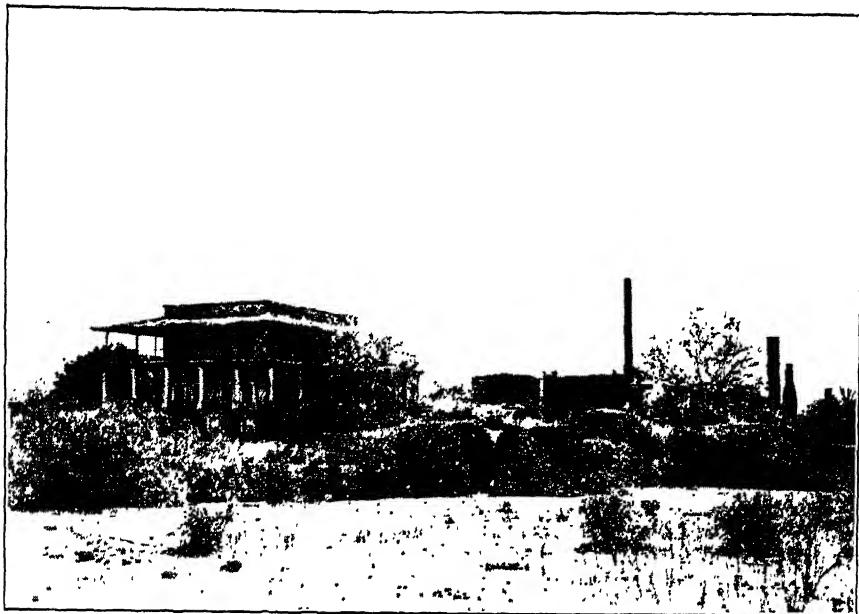
My eyes strayed involuntarily to his boots. "I want to talk with you," I added cordially. "Come to my hotel in the morning. Now be sure to see me!"

He said he would come but he never did. However, he will probably turn up again.

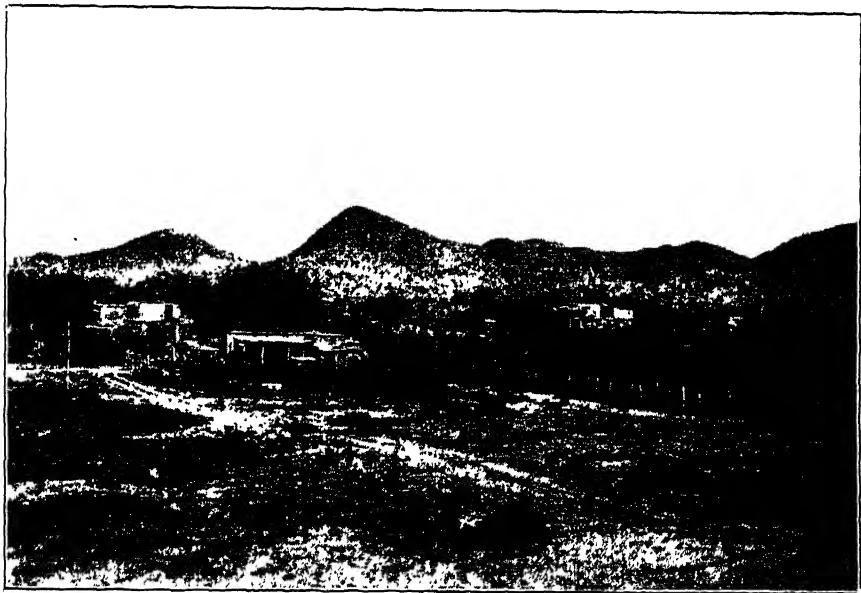
As my experience increased I came to realize more and more that the sympathetic mining engineer often had to serve in a capacity not unlike that of the doctor who is obliged to inform his patient's family that there is no hope of recovery. Somehow one never can become quite calloused to this situation, however often it may occur.

I once made an examination of a mine in the remote district of Jesus Maria in the Sierra Madres. It was hardly more than a prospect, owned by an American, who, with his little family, had been living there a dozen years or more. He had expended his last available dollar on the property and was hoping and believing with all his heart and soul that my examination would result in a favorable report and the payment of enough money to take his family back to the States—to God's country—where they would thereafter live. Unfortunately the poor fellow's wish could not be realized. To my great regret, I was compelled to make an adverse report, and his dreams vanished. He and his wife were heartbroken.

An experience which made a profound impression on me occurred when I went to investigate another mine in the same district, a hundred and fifty miles west of Chihuahua. While there, I was told by Waithman, the young English superintendent, that a famous English engineer was buried near by—a man who had introduced improved



HACIENDA AT MINAS NUEVAS



THE MINE AT MINAS NUEVAS



I START OUT TO INVESTIGATE A MINE IN MEXICO

metallurgical processes into Mexico and who had died in these hills. Out of respect to his memory I hunted up his burial place.

I found his body in a shallow grave hollowed out of the stony ground; the earth and rocks had fallen in and one end of the coffin was broken away. There he lay, his face exposed, gaunt and bearded, upturned to the sky. Though he had been dead some fifteen years, the dry air and soil had so mummified his head that a friend could have recognized his features. It was a gruesome sight, and made me realize what is meant by the term "decent burial."

This reminder of death so affected me that I left some money with Waithman to provide a deeper grave for our fellow laborer. And then, only a few days later and probably before he could carry out our plan, Waithman himself was murdered by Mexicans. The whole circumstance seemed symbolic of the loneliness and the danger that are the lot of the field engineer in the forgotten holes and corners of the world.

CHAPTER EIGHT

Insurrectos and Indians

A RESCUE MAKES A GOVERNOR — MY FAMILY BRAVES THE JOURNEY SOUTH — THROUGH HOSTILE COUNTRY — SANCHEZ, THE BANDIT — LOYAL YAQUI — OUTWITTING THE MEXICAN FIESTA — THE TIRELESS TARAHUMARES — A BRUSH WITH THE STATION AGENT — RUNNING THE GAUNTLET WITH A SILVER TRAIN — I RECOVER OUR STOLEN BAGGAGE

After seven months at Minas Nuevas I naturally became lonely. Not only was social life nonexistent, but correspondence with my family was as uncertain as Sonora politics could make it. All mail for the mine came by muleback from Guaymas, a distance of more than two hundred miles. Three weeks at least elapsed before letters could pass to or from San Francisco and much could happen to a foreigner in Mexico during that period. The service, moreover, was constantly interrupted, not merely because of unsettled conditions, but because the mail frequently was held at Guaymas until a sufficient amount accumulated to make a mule load.

When my wife wrote that she had made up her mind to join me, I protested, but my objections must have been feeble since they were promptly overruled. Consequently, we arranged to meet at Guaymas. As it turned out, a more inopportune time for her visit could hardly have been chosen. Scarcely had our plans been made and the last possible letter exchanged, before the whole of Sonora was

plunged into the uproar of a state election, in which I was unwittingly destined to play a part.

I chartered a small schooner to take me from the little port of Agiovampo up the coast to Guaymas to meet my family. As the vessel was weighing anchor, a man on horseback galloped furiously to the water's edge and shouted wildly in English, "Save me! Take me with you quick!" His tone conveyed such desperation that I felt I could not ignore his appeal. So fearful was he of pursuers that he flung himself off his horse and waded out to meet the boat which I sent for him; then scrambled into it, and crouched down until he was brought aboard the schooner, where he flattened himself out on the deck. I was sympathetic with his distress but could not quite grasp the situation. Then, just as we were getting well under way, a dozen or more horsemen appeared over the brow of a hill, dashed down to the water's edge, and gesticulated frantically at each other while looking in all directions. My uninvited guest, still trembling at his narrow escape, explained that these men would surely kill him if they could get at him. They did not fire at the boat, however, because their quarry took care not to show himself until we were well out of the harbor, and they were apparently not sure he was on board.

After my passenger had recovered from his fright, he told me his name was Felizando Torres. His political enemies had hunted him out from a little town not far away and would have "defeated" him in the usual manner if they could have captured him. In the course of our three days' sail I found he had studied in California, spoke English perfectly, and knew several of my California friends.

When we reached Guaymas, he gave me a letter which he wished me to deliver to the American consul, Alexander Willard, who was also the agent for our company, and who had known my father and my uncle, Colonel Hays, in California. Willard informed me at once that Don Felizando was the outstanding candidate for governor of Sonora. We both realized that neither he, as American consul, nor I, as manager of an American mining company, could risk being embroiled in Mexican political affairs, and therefore must exercise every precaution not to become involved as partisans of the Torres faction.

Willard asked me to convey quietly a message to Torres advising him not to land in Guaymas, where death was certain. He was, instead, to steal our rowboat, escape to the other side of the bay, and make his way to Hermosillo, the capital of the state, where his adherents were awaiting him. This he managed to do and, as the result of a rapid "campaign," became governor of Sonora inside of two days. He held this position until his death, after which he was succeeded by his cousin Señor Luis Torres, who, in turn, held office until 1911 when, as an adherent of Diaz, he was obliged to flee the country.

By helping Don Felizando escape, I was at least partially responsible for the outcome of the election. This incident brought home to me in impressive fashion the nature of political candidacy, particularly in Mexico during the eighties. There politics, like marriage, were not to be entered into lightly; but reverently, discreetly, advisedly, soberly, and with due regard for life and limb. In England they "stand" for Parliament in traditional dignity; in America we "run" for office; but in Mexico, the defeated candidate wisely "ran"—away.

I never shall forget a practical illustration of this in the Sonora state election in 1883. At that time, as I recall it, about a thousand votes were needed by one of the parties to obtain the coveted office. Agiovampo, with a "population" of about a hundred—including men, women, children, burros, dogs, pigs, and chickens—cast the requisite number of votes.

Conditions in Sonora were no worse, however, than elsewhere in Mexico. A story told me by the manager of a silver mine in Chihuahua clearly indicates the qualifications of the electorate there. The managing director of the company had come from the States to visit the mine. After examining the property, he expressed his satisfaction with its administration and told the manager he had nothing but praise for the way it was being run.

"But," he said, "my associates up north cannot understand why you are not more broad-minded in your ideas of Mexican politics. Why don't you put more emphasis on the liberalization of political institutions?"

The manager explained that in his opinion the peons with whom he had come in contact were not qualified to vote.

"You have an entirely wrong conception of the Mexican character," he went on to explain. "They are not at all ready for any liberalization of political institutions. I'll give you a practical demonstration of this. I'll call a meeting and tell my men that on a certain day they will be given the privilege of expressing their personal choice as to who shall be president of the republic."

Accordingly, he issued a proclamation in which he assured the inhabitants that they were entirely at liberty to express their preference secretly and without any prejudice to themselves. The amazing result of this plebiscite was that about a hundred votes were cast for the most popular bullfighter in Mexico, fifty for one of the most notorious bandits in the section in which the mine was located, and a hundred and fifty for the great Mexican patriot, Benito Juarez, who had then been dead more than fifty years. After this example of Mexican political acumen the managing director acknowledged that Mexico did not possess the attributes of an intelligent democracy.

President Wilson once took offense at my telling this story, because he felt it cast an unfavorable light on his and Secretary Bryan's Mexican policies.

While the unsettled political condition in Sonora was most acute, my wife arrived at Guaymas in October, 1882, coming by steamer from San Francisco. Her little domestic expedition consisted of our son Harris, almost a year old, his nurse Theresa, my sister Betty, and my young brother Dick. The revolution started by my friend Don Felizando and his adherents had already had its repercussion in Guaymas, where for several days desultory fighting had been going on. With difficulty I managed to commandeer two rooms in the bare attic of a house owned by an acquaintance who was absent at the time. There we remained in seclusion for two days until the fighting had subsided. Since it was unsafe to leave the house, I could procure food only by foraging at night.

I had intended to take my family from Guaymas to the mine by wagon, but when the far-from-comforting news reached me that a party of foreigners who had been making the trip by land had been massacred by the Apaches a few days before, I decided to return to

the mines in the same boat on which I had come north. When we were on the point of sailing, we found that the guns of the fort of Guaymas were trained on our boat to prevent our leaving. Having discovered my connection with Don Felizando, the commanding officers were evidently afraid I might be up to more mischief. However, through the assistance of Willard, we secured the proper papers from the Mexican authorities and sailed.

The boat was loaded to the gunwales with mining supplies, among which was a large quantity of explosives. Below deck the only vacant space was a small hold, badly ventilated and half filled with freight. So far Betty's only traveling had been to and from boarding school. But my wife had described to her the ornate Mississippi River boats with their red plush cabins and, when I told them I had chartered a schooner, they both expected the same sort of luxury. One look, and a whiff of the piles of dried onions in the hold, was enough for my sister; up she went on deck to pick out a bed on some comfortable pile of lumber. We followed her.

One compensation for sleeping on deck was a glorious view of the great comet of 1882, but this was offset by certain disadvantages: we were exposed to the heavy dew and the chill night air. The pathetic wailings of an innumerable family of kittens periodically disturbed our slumbers. We were fed the same kind of stew at every meal; my sister ominously maintained that the stock of kittens dwindled progressively.

It would have been a hard trip even for experienced travelers. Fortunately I had laid in a supply of provisions which included champagne, tins of pâté de foie gras, and ice. This may sound luxurious, but the iced champagne proved to be a veritable lifesaver rather than an indulgence. Harris cut his first tooth, acquired a red bandana when he lost his hat, and developed calentura. Fortunately, he turned out to be an indestructible baby.

Agiovampo was reached on the third day. About ten days earlier, when I had seen it last, there had been a hundred or more natives in the little pueblo, but when we arrived there on the return trip not a living soul was in evidence. Indians had frightened the inhabitants away, and the prospect of the journey into the interior was not cheerful.

Before leaving Guaymas I had sent a messenger by land to the mine with instructions to have a wagon and pack animals meet us on our arrival at Agiovampo. For some reason they were delayed, with the result that we were obliged to wait there for them. Meanwhile we had decided to sleep on shore in a shack, and ordered the captain of the boat to remain anchored near by. He disregarded instructions and sailed off, leaving us with no refuge. We were not molested, however, and finally our wagon put in an appearance.

On the way our driver had encountered an old Mexican whom he engaged as guide. I shall never forget the old fellow's surprise when I gave him a piece of ice. He accepted it calmly enough, but, as soon as his hand touched it, he dropped it, saying it was "too hot." But he was still much interested in it and, at his request, I gave him a large chunk to take home. Carefully wrapping the ice in a blanket, he tied it behind his saddle. I could imagine him later telling his children what a curious present he had for them and his amazement, upon untying the blanket, to find that the treasure had mysteriously disappeared.

Most of the trip from Agiovampo to Alamos was uphill and over sandy roads. I was in constant apprehension of an attack, from either Indians or bandits, since both usually took advantage of disturbed conditions to rob, pillage, and murder. I would ride a mile or so ahead of our caravan, carefully scanning the horizon to make sure the road was clear of hostile parties. If none were in sight, I would wave a handkerchief as a signal to the driver and he would come forward with all the speed he could urge out of his mules.

The trip was naturally one of great nervous tension for the women, but my wife proved to be a heroine—as she did on many subsequent occasions—and did everything possible to reassure my sister and the nurse. By way of encouragement, she frequently declared that in case Dick and I should be killed, she would faithfully promise to shoot: first, the women of the party, then her child, and then herself, rather than have them fall into the hands of the Indians.

Late the first night we reached a little pueblo occupied by peaceful Indians. There we slept, and proceeded early the next day to Alamos. Just before we reached the town we were met by a com-

pany of Mexican soldiers, sent by Governor Torres to escort us to the mine. They had been ordered to meet us at Agiovampo, but, evidently knowing the Indians were raiding, concluded that discretion outranked valor. At Alamos we rested a few days under the hospitable roof of the Bours family, and then went on to Minas Nuevas. Once safe behind the barricade I made no effort to stifle a sigh of relief.

The house had been thoroughly cleansed and made ready, but even so life at Minas Nuevas was full of hardships for my little family. It was impossible to obtain any but the crudest kind of peon cooks, and the culinary ingredients themselves were not specially appetizing. Although the climate was hot in summer, it was not unhealthful, and most of our time was spent out of doors on a large veranda.

After a short stay, my brother returned to California. As I was frequently away all day at the mine, I felt that, as a means of self-protection, my wife and sister ought to know how to use a gun. On Sunday afternoons, when the natives were on the streets, we would go out and practice shooting. The ability to shoot straight was in itself a protection against people whose chief weapon was a machete.

In spite of all efforts on the part of the insurrectos, Minas Nuevas continued to operate. My worst difficulty was with a Mexican named Sanchez, whom I had hired as a labor contractor, or mining captain. He had formerly been a notorious bandit, had killed several men, and enjoyed a reputation consonant with such activity. But he had given up the profession of banditry for that of mining, and, as a labor leader, he was first class. When the commander of the revolutionaries threatened to press Sanchez and his men into service, my bandit replied that in that event the first shot he himself fired would be at his officers, while his men would fire into their own ranks. Since he was so evidently a desperado, he and my workers were left undisturbed.

But when comparative peace had been restored in the vicinity, Sanchez began to think himself indispensable, and consequently grew very cocky. When full of tequila—a particularly vicious brand of alcoholic drink, made from the century plant—he would pro-

claim abroad that I was afraid to discharge him, and boast of what he would do to me if I did.

I knew that if his swaggerings were allowed to go long unrebuked, there would be an end to any discipline in the mines. Accordingly, I determined that the next payday I would make an example of him. When the men were all lined up to draw their weekly wages and Sanchez stepped forward to the desk for his, I said in a loud voice: "Sanchez, I hear you're saying I'm afraid to discharge you. Here's your money. You're fired! Now get out and stay out! If you set foot on this property again or make any move against me I'll shoot the hell out of you!"

Muttering, and with black looks, Sanchez went off, but thereafter made it his business to get me. He carried a gun, and guns were a prized possession among the Mexicans, but he was also expert with a knife, which was better for night work. Since Sanchez continued to lurk in the neighborhood, I had to be incessantly on guard.

I have already referred to my Yaqui bodyguard. They belonged to a remarkable tribe. The late Carl Lumholtz, an acknowledged authority, who spent many years in studying the Indians of Mexico, told me that he regarded the Yaqui as related to the warlike Apaches. But the great majority of Yaqui were not aggressive, though, when drilled, they became the best soldiers in the Mexican Army and in later years have been used as shock troops in battle.

Every week I would send my Yaqui guard with several thousand dollars' worth of silver, in the form of large ingots, to the mint at Alamos for coinage and deposit to the company's credit. Armed and on horseback, it was the duty of the Yaqui to convey the bullion to the mint and then bring back to me a thousand or more pesos in coin, packed in sealed canvas sacks, for the weekly raya, or payroll. The guard would place the sacks upon a table and stand at attention while I counted the money. As soon as I said "Es bueno" they would salute and retire.

Had these Indians ever absconded with the money and fled with it to the mountain fastnesses which were their tribal home and where they sought refuge when pursued by Mexican troops, its recovery would have been impossible. There was, however, not a single defalcation. In a small way they did indulge in the habits of the country.

They would, for example, pilfer a pistol, a knife, or such objects as were regarded by them as legitimate prey. To this local custom their employers were perforce obliged to bow.

It was, in fact, not an uncommon experience for me to buy chickens from my Yaqui employees, have the same fowl stolen by them within a few hours after their delivery, and promptly offered me the following day for repurchase. The Yaqui simply regarded this method of adding to their pin money as a special prerogative. While I was not indisposed to humor them to a reasonable extent, after I had purchased the same chicken several times I would protest and ask them, in the patois at my command, if they did not think they were rubbing it in.

One vexing detail under which we labored at Minas Nuevas was the constant interruption to operations caused by the innumerable holidays. Every saint in the calendar; every patriot, real or fictitious; every battle, fought or contemplated, had his, her, or its day, and, of course, any suggestion that the hero of the occasion might be honored by a stroke of work would have been regarded by the peon as sheer blasphemy. In consequence, fully one-third of each month was simply time lost. With Machiavellian cunning I did, however, manage to establish a triumphant record of having kept our company's smelter running throughout the entire round of the many and various fiestas.

These fiestas always seemed to occur at a time when to close down operations would have been a costly proceeding which we could ill afford. Heretofore, the Indians had been accustomed to leave the mine in a body for several days and repair to their villages for the Easter celebrations. This year I persuaded them to postpone their pious pilgrimage by hiring a circus outfit and arranging for them to celebrate in shifts while keeping operations under way at the same time. Thus, by solemnly mounting the griffins and swans of the merry-go-round between shifts, the Yaqui were enabled to do their duty by the saints and I to fulfill my own by the mine.

In addition to the periodic demands of religion, the observance of Sunday invariably handicapped the work during the early part of the week. Regularly after each Saturday payroll had been distributed, both Mexicans and Indians proceeded to seek consolation

in the national beverages of pulque and mescal of which they partook so freely that always on Monday, and generally on Tuesday also, they were incapacitated for work. With Saturday as a half-holiday, Sunday an entire one, Monday and Tuesday set apart for convalescence, and a saint's day or two thrown in for good measure, work at the mines proceeded somewhat spasmodically.

My predecessors had found no solution to the problem and had submitted to what they regarded as the inevitable. My patience gave way at last and I set about seriously to devise some system whereby we might be reasonably sure of at least four days' work a week. Since temperance was obviously impossible, I resolved to outwit the demon rum: first, by setting up a model saloon; second, by purchasing the least injurious brand of mescal; finally, by selling this to the company employees at a lower price than it could be obtained from the village tiendas. In return for this display of public spirit on my part, I entered into an amicable arrangement with the natives. I was to allow them to get freely and gloriously drunk on Saturday night—in fact, I urged them to start early—and to remain intoxicated throughout Sunday. When Sunday evening came, I was privileged to have them all arrested and clapped under lock and key to sober up for Monday morning. The plan worked admirably. All parties were satisfied and the output at the mine was considerably increased.

My method was only less drastic than that of the padre in charge of a California mission in the early days. His church choir was composed of Indians, and to ensure their attendance on Sunday, the padre found it necessary to lock up the choir on Saturday night so that the members might be in proper physical condition for the next day. This confinement tended to inculcate in them the proper Christian spirit.

On my later trips through the northern Sierra Madre region I saw a great deal of the Tarahumare Indians, a most primitive people. Only about twenty-five thousand of them are left today, the remnants of what was a vast population at the time of the Spanish Conquest. Their most striking custom is a curious game in which, like waltzing mice, they indulge from morning until night. The men and women of the tribe drive before them a large ball, ever harder and faster,

without any apparent objective. The race goes on indefinitely until the entire community is too exhausted for further pursuit. After pausing for the necessities of food and rest, the game is solemnly resumed. What the contestants see in it, nobody knows; they themselves cannot explain their enthusiasm. They only know that their ancestors for generations found in it a *raison d'être*; therefore, without further thought, they gird their loins and run with tireless zeal the race that is set before them.

Centuries of playing this tribal game have bred in them such facility in using their legs that they run almost involuntarily, much as a fish dilates its gills or a human being expands his diaphragm.

Consequently, the Tarahumares have phenomenal endurance as runners. A healthy Tarahumare, jogging along with hardly a pause, will run seventy miles a day. There is one well-authenticated instance where one of their messengers covered five hundred miles in five days through an excessively rough and mountainous country.

Rumors of the prowess of these Tarahumares brought an emissary from the managers of the Olympic games with an invitation for the Indians to compete, but, in spite of all inducements, they refused. Although they broke world records every day and thought nothing of it, they preferred their own ball game to athletic laurels.

In making a long journey, the Tarahumare runners live entirely on pinole, a native dish of parched corn ground to a powder and mixed with water. If they crave a more substantial meal, they will stalk a deer, and have been known to follow it through jungles and across mountains for days at a time until the fleet animal itself was exhausted by their tireless pace. Smaller animals, such as rabbits, they kill with boomerangs.

On several occasions I employed Tarahumare guides. I recall one record trip I made from a mine in the Sierra Madres to the railroad at Minaca, Chihuahua. I traveled over the rough trails with the same horse for twenty hours, pausing only occasionally for a brief rest. During the whole journey my guide ran ahead of me with no sign of fatigue.

While I was at Minas Nuevas I had by me constantly day and night and even in the mines my trustworthy friend, a six-shooter. Repeated threats had been made to me, anonymous for the most part,

and I had not depended solely on the vigilance of Don Tomas, the night watchman who sat at the foot of the stairway leading to my sleeping apartment at the hacienda. Don Tomas had acquired the reputation of hombre valor some years before, when he had kept watch at the same stairway of the Ortiz family, who lived in the hacienda at the time, to prevent an enemy from approaching. One of the enemies tried to force his way past Don Tomas, and Don Tomas shot him dead.

While as I have said I did not place my safety entirely in the watchfulness and valor of Don Tomas, his presence was something of a comfort, especially to my wife and family when they were with me. Just before leaving Minas Nuevas I passed Don Tomas one day and saw the handle of his six-shooter projecting from the holster. Out of curiosity I pulled it out and tried to shoot it, but I could get no reaction. I pulled at the trigger several times, but without result. Then Don Tomas tried his hand but still nothing happened, much to his mortification. It would have been indeed a slender reed to depend upon.

During the winter of 1882-83, my father-in-law, Judge Harris, came to visit Minas Nuevas. This relieved my wife of some of the great nervous strain under which she had been living. Not only was it almost impossible to obtain proper food for her small baby, but also her own life had frequently been threatened by the same bandits who were trying to ambush me. To be fired at from behind a cactus plant while passing with her baby in her arms made peaceful monotony seem most desirable. By spring, conditions were so alarming that I called a family council to discuss what was best to be done, and it was then decided that my family should accompany Judge Harris back to the States in April.

My wife was so worried by the risks I was constantly running when off the mine property that, before she would consent to leave, she exacted from me a sacred promise never to go out without some of my Yaqui guard.

When the appointed day came, I accompanied my family as far as Guaymas. This time we traveled by wagon, sleeping under it at night, and arrived a week later at Ortiz Station on the railroad between Guaymas and the Mexican frontier at Nogales.

As Ortiz Station was merely a tiny community of about a hundred Mexicans living in adobe huts and boasted no hotel, and as the train was not due until the following morning, I looked around for quarters for the night. The station was in charge of an American agent; the railroad at that time was part of the Santa Fe system. At my request he gave us permission to spread our blankets on the upper floor of the station building. This would at least give the women and the baby an opportunity to rest. Unfortunately, the agent got drunk. He then amused himself by firing his pistols at anything within range. As the day wore on, this performance grew more and more annoying, yet there seemed to be no way of stopping our inebriated host, who was enjoying himself immensely.

About dusk we went to a near-by Mexican hut where I had arranged for frijoles and tortillas. During the supper our spirits were lowered still further when we learned there were several cases of "black" smallpox in the village. After supper, my wife and sister went upstairs again while I sat below on the station platform to have a smoke. I had been there only a few minutes when the agent rounded into view, very unsteadily, and asked me between hiccoughs if I liked music. I responded in the affirmative; whereupon, he said, "Do you see that greaser over there trying to play a fiddle? Now, you go over and get that fiddle and I'll show you what real music is."

I replied that I did not believe I cared enough for music to do that, and then asked, "Why don't you go yourself?"

Like a flash he pulled out a pistol and, leveling it at me, shouted, "You go get that fiddle, if you know what's good for your health."

The pistol was fully primed and his finger on the trigger was alarmingly shaky. Meanwhile, my wife had overheard the row; she rushed to the window and pleaded with him not to shoot. Without taking my eyes off the agent, I called up to her not to worry, and then proceeded to revile him in all the fluent, vivid phrases of the Forty-niners, among other things calling him a dirty coward and daring him to shoot.

This so astonished the agent that he actually paused to listen to my eloquence. Taking advantage of his hesitation, I suddenly wrested the pistol from his hand. Nevertheless, it was a close call. A knowledge of the psychology of a drunken man, gained during

observations of many rough scenes in the mining camps, had taught me that nothing could be more disconcerting to one in the agent's state than a sudden bold verbal attack.

However, this was not quite the end of the adventure, for the man, having gone to his room, came back in a few minutes with his right hand behind his back, walked menacingly to within a few feet of me, and demanded, "Now give me back my gun!"

But I had him covered. "Move that hand an inch and I'll shoot you full of lead!"

He saw I meant business and sheepishly admitted he was only bluffing. Nevertheless, I kept my finger on the trigger as I walked slowly around him to make sure he was unarmed.

The rest of the night passed peacefully, albeit uncomfortably. I am sure, however, that my wife and sister were glad to see the train come down the track the next morning. They reached Guaymas safely and from there went east, having had enough of Mexico for the time being.

I returned to the mines, although I had decided to resign as soon as the company could conveniently spare me. Any expectation I might have had of gaining reflected glory as manager of a famous mine had come to naught. I realized that there was neither wealth nor fame to be had at Minas Nuevas. Because of the difficult situation there, I waited several months before taking formal leave; the revolutionists were making things exceedingly trying. The political faction which then had charge of the mint at Alamos was making unfair returns on the weight and fineness of the metal we sent to be coined. To evade this imposition, I decided to hold the silver at the mines until I was ready to leave, and then take it with me to Guaymas for shipment to the States.

Immediately upon my wife's departure, my loneliness began to return. One evening, about a month later, I rode off to visit a German who was running a mine some five miles away. I enjoyed his company, and when he asked me to stay to supper, I accepted the invitation. As we were sitting before a grated window, I saw a dim figure pass. I recognized Sanchez. If I had told my host that Sanchez was probably planning to waylay me on my homeward journey, he would have given me an escort, but with some false pride

at confessing alarm, I said nothing. Soon afterwards I set off in the moonlight over the trail. I rode an active and sure-footed cow pony in whose speed and quickness I had great confidence. Indeed, there had been times when I was safer alone on my mount than if attended by guards on slower horses.

Except for one steep, sloping outcrop of rock, twenty-five or thirty feet long, the trail furnished good footing. As we started gingerly across this bad stretch, I caught sight of the shadow of a man rising from the bushes. I clapped spurs to my pony's flanks. The little beast covered the slippery rock in two noble jumps, and I was away down the trail. I confess the bandit gave me a turn, but what was most disturbing was the thought that if I had been murdered my wife would thereby have discovered that I had broken my sacred promise to her. Conscience doth make cowards of us all.

Sanchez continued to stalk me, his last attempt on my life taking place the day before my departure. As Clement and I were sitting on the broad veranda in the upper story of our building, two rifle shots were fired, one very narrowly missing me. Both Clement and I immediately dropped to the floor and crawled off to the stairs. Mounting our horses, which were always standing in the yard saddled, we started off in quest of the desperado. We might have spared ourselves the trouble because, as usual, the wily fellow had gone to cover. This was his parting shot.

Preparations were carefully made for the departure of the silver train which I was to take to Guaymas. Ordinarily the mules used to transport the silver carried a load of three hundred pounds each. But since this time we were convoying a ton of pure silver bullion worth many thousand dollars, which I knew would bring the Mexicans hot on our trail, we loaded the mules with only half the usual amount—a seventy-five pound ingot in each saddlebag. In order to make even greater speed, I had fresh mules relayed about fifty miles away on the road to Guaymas.

Late one afternoon, during a heavy thunderstorm, I called ten of my Yaqui guards together and had them saddle and load up the mules with the silver bars, blankets, food, and other equipment necessary for the trip. Off we started. The first few miles were over a mountain trail, which we were able to follow only with the

help of occasional flashes of lightning. All that night and late into the next afternoon we kept going in order to reach our relay station. There we snatched a few hours' sleep, spreading our blankets over the bars of silver and using them as mattresses. This, I need hardly say, was to ensure their protection, and not because of their comfort or resiliency.

When we resumed our journey, I was very glad to change from horseback to buckboard—the week before I had slipped in the mine and hurt my back. Sitting astride a horse was decidedly uncomfortable. My team was made up of a horse and a mule. Although we had only a few hours' start on the Mexicans we never saw them, but it may have been only because we never took time to look back. I led the way in the buckboard, while the pack mules were driven from behind by the Yaqui guard. In record time we reached the Yaqui River.

In attempting to cross, I found that the recent heavy rains in the mountains had so increased the depth that it was impossible to ford the river. I made several attempts to cross with the buckboard where the river seemed most shallow, but each time the mule, in spite of much whip cracking and urging, declined to go on when the water came up to his belly, although the horse, who had less "horse" sense, was perfectly willing to do so.

I was still trying to make the crossing when a voice hailed me from the bank. Turning, I saw a man on horseback, who yelled to me in Spanish that the ford was impassable. When I replied in the same language he gathered from my accent that I was an American, and rode down to speak to me. The water in the middle of the river, he said, was well over the animals' heads and the only available ford was two or three miles farther upstream. The mule's obstinacy was fortunate for me as well as for the pack animals as they would certainly have sunk with their heavy loads if they had attempted to follow my team into the river.

I asked my new acquaintance whether he knew an American named Williams who lived on the other side of the river. He replied that he was Williams but had recently moved to this side. I then told him that I was seeking his hospitality; that because I had a large cargo of silver and a small bodyguard I did not dare proceed after

dark; and that the Mexicans knew I was traveling en bonanza. He said cordially that he would be very glad to put me up for the night.

During the course of our conversation that evening it developed that Williams, a man of about sixty, had originally come from Texas, where in his early days he had conceived an ardent admiration for Colonel Jack Hays. When he discovered that I was none other than the old Ranger chief's nephew and namesake, he at once brought out the red-eye. The next day Williams and his three powerful sons took me up the river and escorted me safely to the other side. I offered to pay them for their trouble but they refused to take any money; they did, however, ask me to send them some tobacco and coffee from Guaymas. Naturally, I was glad to do this.

Shortly after crossing the Yaqui River we received word that American troops had driven the Apaches from Arizona into Mexico, and that the Indians were massacring people in wholesale fashion as they came south. We already knew that the Yaqui Indians were marauding. There was what might be called a twilight zone of about thirty miles between the warring Yaqui on our left and the renegade Apaches on our right. Then, too, we had pursuing Mexicans at our rear. If the Apaches should close in, we planned to edge over into Yaqui territory, because even "bad" Yaqui were preferable to the murderous Apaches. I drove my caravan unremittingly and after three days more of hard riding we reached Guaymas, worn out but with the silver intact.

After I had delivered the metal to Willard, I told of my meeting with the Williams family. Willard congratulated me on having escaped from them alive. When I displayed evident amusement, he went on to explain that the senior Williams had once been considered one of the most desperate characters in Texas. After committing a number of crimes there he had escaped with his family to Mexico, and no one had since had the courage to cross the border and arrest him. I suggested that perhaps Williams had dealt gently with me because I was the nephew of his old hero, Colonel Jack. "Ah," Mr. Willard remarked at once, "that explains everything."

From the reports of Indian depredations that reached Guaymas I realized even more strongly than at the time how narrow had been our escape, and my appreciation of the loyalty of my Yaqui guards

was considerably enhanced. These Indians could easily have done away with me or allowed some "fatal accident" to happen and then could have taken the silver up into their mountains. As a matter of fact, until within recent years no military expedition has been able to expel the Indians from their mountain retreats. The loyalty of the Yaqui to their employers, however, is well recognized by all Americans in Mexico and, indeed, even by their hereditary enemies, the Mexicans.

This question of stealing was the ever-present problem of every mining engineer and manager operating in Mexico.

In 1885, accompanied by George W. Starr, manager of the Empire mine of which I was consulting engineer, I made a trip to examine some mines in the State of Oaxaca, about three hundred miles south of Pueblo, Mexico. The journey was made alternately by stage, horseback, muleback, and litera. The litera is a sort of palanquin, generally in the form of a narrow, coffin-like structure with long poles at either end, which serve as shafts. It is harnessed to mules in front and behind, the animal in front being led by an Indian on horseback. Our litera was the height of luxury, with a canopy to protect the traveler from rain and sun. It was not uncomfortable, though the movements of the two mules did not always synchronize.

We made about four miles an hour traveling continuously night and day over the rough mountain trails. After leaving the city of Oaxaca, where the great Mexican presidents, Juarez and Diaz, were born, we passed the ruins of the Maya Indians at Malta, which are now celebrated because of their archaeological interest.

We also saw the famous tree at Tule, a gigantic cypress, measuring about a hundred and fifty feet in height, a hundred in girth, and with a colossal branch spread of a hundred and forty feet. It is supposed to have been standing a thousand years before Columbus discovered America, and to have sheltered Cortez and his soldiers when they invaded Mexico. The great naturalist and traveler, von Humboldt, had carved his name on the trunk and it could still be seen.

When we arrived at the mines we found that the machinery was of the most primitive type and practically useless. Every morning before the mill started, the miners held divine service asking for heavenly intervention to improve the grade of ore. At the time of

our visit, at least, these prayers were of no avail, for the mine was a losing proposition. After about ten days of sampling the mine, Starr and I started on our return trip on horseback to Oaxaca, where we hired a wagon and a team of four mules to take us to the point where we could secure literas to carry us across the mountains. Starr occupied a seat within the wagon, I did the driving, and the driver himself devoted his energy to securing little rocks to throw at the lead mules, which he could not reach with the whip—he called it feeding the mules maize.

We had proceeded about fifteen miles when Starr called my attention to the fact that our baggage, which had been stowed in the rear of the wagon, had disappeared. Upon examination we found that the straps and ropes that had securely fastened the baggage had been cut with a knife. We were not greatly concerned about the clothing we had lost, but with it were all the samples of ore we had so laboriously collected to bring back to the States to be assayed. Unless we recovered these samples we would have to return to the mine and resample it, involving a delay of several weeks.

Accordingly we started to retrace our steps. A light rain had just fallen and we had gone no more than a mile when we saw clearly marked footprints along the road. This was at a point directly opposite a lane which ran through a patch of sugar cane. The tracks of the bandits led into this lane and as we stood at its entrance an Indian came hesitantly toward us. When he reached us at the junction of the main road he sidled off and started away at a rapid pace. His manner was definitely suspicious. I unslung my sawed-off shotgun loaded with buckshot (a Wells-Fargo "messenger" gun), covered him, and ordered him to come up to our wagon. After I threatened him with all kinds of dire punishment, he confessed that he knew where the baggage was hidden. He pointed to a place about three hundred yards from where we had stopped and said that there were six half-breeds hiding there in the sugar cane. I left Starr to watch the Indian and the driver, in whom I did not have much confidence, and went to recover the baggage, first cautioning Starr to keep guard and not to leave the wagon unless he heard the report of my gun.

I went stealthily along the lane until I came to the point where the footprints led into a dense sugar cane patch and there, not more than

twenty feet from the lane, were six men sitting on their haunches, ripping open the sacks containing our baggage. At my unexpected appearance they started to scramble to their feet but I had my gun on them and ordered them to stay as they were. One fellow made a break and struck at me with his machete, narrowly missing me, and skipped off. I forced the remaining five to repack the ore samples and precede me in single file to the wagon. Few things proved to be missing from the baggage, so we dismissed the men with divers threats and warnings and proceeded to Mexico City, with no more unpleasant adventures.

Fifteen months in Minas Nuevas had temporarily ruined my health. I was in a seriously run-down condition, due not only to the incessant nervous strain I had been under, but also to the lack of proper nourishment and bodily comforts. I was little better off in worldly goods, after all my hopes of discovering treasure, but I had gained much in the way of practical experience. Aside from learning how to deal with the Mexican natives and with labor in general, I had been compelled, in the absence of technical assistance, to familiarize myself with many methods and processes of mining and metallurgy which thereafter were to make me more or less independent of scientific equipment. Finally, I had managed to pick up a good working knowledge of Spanish, which enabled me to keep abreast of the many mining projects all over Mexico. Thus my sojourn there gave me, early in my career, a glimpse of the tremendous possibilities concealed in that little-explored country.

CHAPTER NINE

In Far Places

HEALTH RESTORED—BOSTON AND NEW YORK—THE “PRACTICAL” VERSUS THE TRAINED ENGINEER—THE STRANGE STORY OF AN AMBIGUOUS REPORT—THE GOLD THAT WAS ALWAYS OVER THE HILL—HEAD-WATERS OF THE ORINOCO AND AMAZON—THE PRACTICE OF COUVADE—LIVING ON THE COUNTRY—THE GOLDEN FISHHOOKS—GUATEMALA—HURRICANE AND FEVER

*A*fter nearly two years in the wilds of Sonora I was happy to feel about me once more the stir and bustle of San Francisco. Within a week after my return in June, 1883, I was offered the position of consulting expert to the public administrator of San Francisco, Philip A. Roach, in connection with the examination of the Blythe estate. The fact that Blythe had died intestate made it necessary to have a public appraisal of his property, much of which consisted of mines, partly in Trinity County, California, and partly in Nevada. I was glad to accept this offer as I had saved up little from my salary in Minas Nuevas, and the generous fee was much needed by my family.

At this time my wife was in the East, visiting her sister, Mrs. J. P. Broiderick, at Jamaica Plain, a suburb of Boston. One day, as she was about to go into the city with our son Harris and his nurse, she received a check from me. She stopped in to cash it at one of the Boston banks. As the cashier did not know her, he was naturally

reluctant to honor it and asked whether she knew anyone who could identify her. Unfortunately, her entire acquaintanceship was in Jamaica Plain.

The nurse, Mary Lynch, quick-witted and of course Irish, overheard the conversation, and stepping up to the window said, "And ye don't know that this is Mrs. Hammond?" The cashier replied that he did not.

Mary then picked up Harris, turned him upside down, and exhibiting him back-to at the cashier's window, exclaimed belligerently, "Well, look at this now!" On the inside of Harris's baby drawers was printed the name Hammond. The cashier honored the check, but admitted it was the first time that kind of identification had been made.

My new job gave me the welcome opportunity of leading a wholesome outdoor life without serving as a target for someone lurking behind a cactus plant. While I was examining the mines in Trinity County, I was invited to stay at the ranch of Mr. John Carr, who was in charge of the property. On the strength of good milk and butter, chicken and eggs, the bracing California air, and the motherly care of Mrs. Carr, I rapidly threw off the ill effects of Mexico and regained my health. After a month of this pleasant existence I made a brief excursion into Nevada to inspect a copper mine belonging to the Blythe estate. Then, anxious for a reunion with my family, I hastened east to join my wife and small son.

A few weeks' visit was all the vacation I felt I could afford at this time. I had long been considering an office in New York. I fully realized this would cause me great financial inconvenience, since the cost of living in the East was considerably greater than in San Francisco; that I would be losing the advantage of my business connections, those I had inherited and also those I had built up during my early engineering career in the West. There were serious risks involved, but I recognized the advantage of being near abundant capital, and I also realized that, if I were fortunate enough to succeed, it would be on a larger scale than I could hope for in California. Furthermore, if I were successful in New York, I could thereby establish a national reputation.

In this situation, in which risk and profit were evenly balanced, I called to mind the quotation from Browning's *Paracelsus*:

"Are there not, Festus, are there not, dear Michal,
Two points in the adventure of a diver,
One—when, a beggar, he prepares to plunge,
One—when, a prince, he rises with his pearl?
Festus—I plunge!"

Thus I plunged, and took an office in the Mills Building. This building, the most impressive skyscraper of its day, had just been completed by D. O. Mills.

Mr. Mills, whom I had known as a boy in San Francisco, was one of the most prominent of the old-time bankers of California. His large fortune had been made in mining, railroading, and the development of many important industries in California, Nevada, and elsewhere in the Far West. Highly respected for both integrity and ability, he did more than anyone else in that period to make mining recognized by eastern investors as a legitimate industry. He was always one of my strongest backers, even promising his friends that if they could "get a favorable report from John Hays Hammond" he would put money of his own into the enterprise.

Not long after launching myself on my professional career, I called to see my old friend Senator George Hearst at the Hoffman House, then a famous hostelry, as I knew he would be interested in what I had been doing. The senator greeted me cordially by asking, "Well, my young friend, how've you been getting along?"

I replied in what must have seemed a self-satisfied tone, that I was getting along very well and that I had made no mistakes up to that time. Then the senator said, "Well, that is splendid as far as it goes, but have you made any successes?"

Crestfallen, I had to admit that I had not, whereupon he said, "Now go ahead and make some mistakes, and follow through by making some successes."

I did not realize the value of this advice until later in life when I was thrown professionally in contact with a certain type of engineer whose highest ambition was to attain the reputation of conservatism. Men of that type were conspicuous by not having made any mis-

takes, but lacked the daring spirit essential to making a few successes.

After an engineer has made large investments which have turned out profitably for his clientele, he may advise longer shots for that clientele and take chances that as a younger man he would not have been justified in doing.

There may be a happy middle of the road which the engineer should follow between ultraconservatism and too much daring, but to attain signal success in big enterprises the words of the first Marquis of Montrose are worth keeping in mind:

He either fears his fate too much,
Or his desires are small,
That dares not put it to the touch,
To gain or lose it all.

In the East I found less prejudice against an educated engineer than was indicated by Mr. Hearst's earlier attitude when I applied for a position.

Looking back now, I recognize that there was much justice in what Mr. Hearst had said about men with a Freiberg degree.

Unfortunately in the preceding generation the educated engineer was disposed to affect a certain superiority which naturally aroused the hostility of the so-called practical miner. In my case I was fortunate in having been brought up in a western community that judged a man solely by his achievement. For that reason I succeeded in getting along well with the practical miner, but I soon realized the immense advantage of technical training as I observed that a trained engineer could in a short time qualify as "practical" in the operation of mines.

It did not take the educated engineer long to become more proficient in the handling of pumps and other mining machinery, in timbering the mines, in the use of explosives, and in the extraction of ore bodies, than the practical miner himself. And, of course, in the metallurgical treatment of ores he was immeasurably superior by reason of his technical knowledge.

It is a commentary on the "practical" miner that he is far more of a theorist than the "theoretical" mining engineer when he at-

tempts to explain geological phenomena, for he is not restricted by scientific considerations from giving free play to a glamorous imagination.

I was not long in learning that the financial backing I established through my eastern clientele greatly enhanced my reputation in my native state, and enabled me to demand and obtain much higher fees than would have been the case had I confined my professional activities to California.

Believing that the "laborer is worthy of his hire," I exacted from my clients in the way of fees all that the traffic would bear, or almost the limit. The technical man, as well as the laboring man, often has been forced to battle for his rights in this connection.

That this attitude was not unconscionable may be shown by the relation of the engineer to his employer. It is on the strength of the recognized integrity, ability, and successful experience of the engineer that capital is invested in mining enterprises. The success or failure of such enterprise determines the career and future value of the engineer. He risks his reputation when he submits a report to his client.

The engineer is not privileged to urge extenuating circumstances in case of failure. The lawyer may ascribe the loss of his case to an incompetent judge or to a corrupt jury; the doctor, the loss of his patient to the will of God; but the engineer must escape the odium of failure. *He must make good.*

That the engineer should be fully requited for the professional service which has contributed large profits to his employer and the investing public should not be regarded as grasping or unfair on his part. The engineer is entitled to a larger part of the profits of the mining industry than the mere promoter, and the lawyer who organizes the company. This is not advocating professional racketeering.

Why should a man who assumes the initial responsibility be deprived of a reasonable profit after the enterprise proves successful? Why should a promoter pocket all the money, because he gets up a prospectus and gets the people to come in on the strength of the engineer's reputation? The investor is entitled to his share of the profits, but the technical man should stand up for his own rights

and be paid well. I have also always maintained that the engineer has the right to invest in the stock of the company and announce the fact in the prospectus, provided he will hold on to his stock until the mine has proved a success.

There are many types of risks which mining engineers must run. One of the most curious of these hazardous experiences was told me by Professor W. P. Blake, who, although considered by practical miners as belonging to the theoretical class of engineers, yet stood high in the ranks of the profession. Blake was a man a little over sixty years old, at this time. He was singularly handsome with a courtly manner of a gentleman of the old school. I had known him socially for some years past.

One of my clients, the manager of the Wells, Fargo Express Company in New York, brought me a report made by Professor Blake on a copper mine located on an island in the Gulf of California not far from Guaymas. I read over the report quite thoroughly. At first, I was somewhat perplexed because of its ambiguity. After reading it more carefully, I told my client it was long-winded and noncommittal, and consequently he would not be justified in sending me to make an examination of the property.

A few days later I was honored with a visit from Blake, his first since I had established my office. I surmised why he had called and braced myself for his indignation. After a few words about our many mutual friends, he said, "Well, Mr. Hammond, you made a pretty hard criticism of my report."

All I could say was that I had made my criticism conscientiously and did not see how I could have done differently under the circumstances.

He looked at me steadily for a moment. "I wonder what you would have done in the same situation."

"I'm afraid I don't know the situation," I replied, a little nonplused.

There was a pause. Then Blake said;
"I'd like to tell you, if you don't mind.

"A Mr. and Mrs. Williams engaged me to make an examination of a copper mine. On a certain day I met them, as agreed, in Guaymas. They were to take me with them in their small schooner to

the island on which the property was located, several days' sail away. An acquaintance of mine who saw me about to board the Williams boat, called me aside and asked whether I intended to accompany these people. On my replying in the affirmative, he inquired, 'Do you know what you'll be up against—going with this man and woman?' I admitted I didn't know anything about them.

"Then he explained. 'She's a notorious murderess. She was tried for murder, and was accused of dissolving the man's body in nitric acid. She got off, and later married this Welshman, Williams.'

"I was disturbed over the news, but as the boat was not only about to sail, but also had all my belongings aboard, and I had accepted half my fee in advance, there was little else left for me to do. At the outset of my examination I saw that the property was no good, but I was in mortal terror that, if I should make an unsatisfactory report, I would never see my home again. Williams said he expected to sell it on the strength of my good report but I was convinced, nevertheless, that he knew it was utterly worthless.

"At the conclusion of the day's work, I was evidently expected not only to express some kind of opinion but to put it in writing. I tried to get them to let me take home the data I had gathered and later submit them a written detailed report. But they evidently could see the way my mind was working and insisted that it be completed before we leave the island. We were entirely alone, with the exception of a few Mexicans, and there was absolutely no communication with the outside world except by their schooner.

"There was only one thing I could do. I wrote a report which conveyed practically nothing in as many words as possible. I described at great length the geology of the mine, entering into many mineralogical technicalities. Then I described the Indians and their ancestry, paid a glowing tribute to the climate, and finally added pen sketches of the scenery. I hoped the noncommittal part of the report might be overlooked if I magnified the good features, but I tried to include sufficient qualifications to prevent readers from being misled. I think it worked.

"I was in the position of Scheherazade in the *Thousand and One Nights*, whose life depended on keeping the sovereign interested and

amused. My hosts were entertained as I had planned and at the same time you were not deceived."

I congratulated him on his shrewdness in getting out of a decidedly delicate situation.

One of the most important of my early commissions came in 1884 when I was employed by New York clients to make an examination of a reputedly valuable deposit of gold in Colombia. Victor Cerruti, promoter of the proposed mining deal, went with me on this three months' trip. Our route took us first to Aspinwall and thence by rail across the Isthmus of Panama, where we waited a few days for a steamer bound down the west coast of Colombia. The region now called the Canal Zone and also the Republic of Panama at that time belonged, of course, to Colombia.

At the time of my arrival there, French engineers and their swarms of laborers were dredging a channel through the fever swamps and digging through the low hills. Yellow fever and malaria were killing hundreds and taking the heart out of the great de Lesseps enterprise. Not lack of courage but fever, imperfect engineering, and corruption defeated the French, and turned their project into disaster. The canal had to wait for Theodore Roosevelt, Gorgas, and Goethals.

I was fortunate enough to secure from the French officials a contract for a dredge to be made by the Union Iron Works of San Francisco, of which I was then consulting engineer. This dredge was of such excellent workmanship that it was the only one in good enough condition to be used when the American government took over the construction of the canal.

The original engineering plans of de Lesseps had been to cut a sea-level canal. When he finally realized, however, that the cost would be vastly increased and the time required would be much greater, he adopted the system of locks identical with the plan of the American engineers when our government took over the completion of the project. From a military point of view a sea-level canal would still be desirable, and it is probable that some time in the future our government will construct a canal through the right of way already acquired in Nicaragua.

At Buenaventura I was greatly shocked to learn of the death of my dear friend and classmate, David Root Alden, who had died about a year earlier from the Chagres fever while constructing a railroad from Buenaventura to Cali. This made me realize keenly the dangerous nature of this disease which was again epidemic and hastened my departure for the high lands of the interior. After two days' travel on horseback, we reached Cali where I stopped with the Cerruti family.

Cerruti himself was one of the wealthiest and most important merchants in that part of Colombia. His wife, a descendant of Bolivar, was a highly cultured and charming woman, who had been educated abroad and spoke several languages fluently. They had three small children, to whom the mother taught music by means of a piano which had been brought over the trails from Buenaventura by pack mules. It was a great surprise to find a home like this so remote from civilization.

A few years after my parting with Cerruti he was one of the principals in an international incident. He had been arrested as an alleged political conspirator against the Colombian government. As an Italian citizen, he naturally appealed at once to his own government for help. Warships were immediately sent to make a demonstration along the coast of Colombia. Direct negotiations failing, the Colombian and Italian governments submitted the matter to President Grover Cleveland as arbitrator, and he decided in favor of Cerruti. Soon afterwards he and his family returned to Italy.

Leaving Cerruti in Cali, I secured equipment and guides for the trip into the country between the headwaters of the Orinoco and the Amazon. I spent several weeks searching for quartz veins and placers containing gold, but found no precious metal in quantities warranting development. Everywhere I went, however, the natives assured me through my negro guide, who acted as a kind of interpreter, that just over the next rise was a hill of gold. There were, then, no maps of the country, and often no trails; sometimes I had to wade for hours waist-deep in the streams to avoid the jungle. Although I found no gold, my wanderings were interesting in respects: I had been where no white man up to that time

had ventured; I had stood on top of the continental divide; I had seen streams flowing to three great rivers, one of which emptied into the South Atlantic, one into the Caribbean, and one into the Pacific.

It was in Colombia that I first heard of couvade. I had employed negro girls, in charge of an elderly negress named Maria, to help in prospecting work. One day Maria did not report for duty. I readily understood the reason, as it had been evident that she was an expectant mother. Within a few days, however, she returned to her duties.

Coincident with her reappearance came the disappearance of her husband, a lazy negro who looked after the camp and whose principal duty was to see that our beds were free from scorpions and other dangerous insects. After searching inquiry I ascertained that he had gone to take charge of the baby in his wife's place and was lying in bed with the child, receiving calls and congratulations from the old wives of the village.

Many years later I related my Colombian experiences at a luncheon given me by Colonel House, at which were Balfour, Lloyd George, Austen Chamberlain and several other important Englishmen. Couvade was a custom entirely unknown to these eminent statesmen. Indeed, I have met few men who had heard of the custom, though the subject is extensively treated in the Encyclopaedia Britannica. Strangely enough, this practice is known to modern anthropologists, and Marco Polo in medieval times came across it in Chinese Turkestan.

Accompanied by two native guides I penetrated some distance into the cannibal country of Colombia. The tribe was stated to be truly cannibalistic; that is, human flesh was used as food and not merely in the observance of ritual practices. At one time our supply train failed to meet us as arranged, and for two days we had to live as best we could. All we had to eat was a kind of coffee bean toasted in a miner's gold pan. On my return to camp I rode through a native village from which all the men had departed; there were left only women, children, and chickens. I tried to buy some of the chickens, throwing down a silver dollar and expressing my wishes in a sign language invented for the occasion. As the women

refused to sell, I shot a chicken and picked it up. A terrible racket ensued. There came cries of "white devil" from the women. Not satisfied with terrific howls and shrieks, these inhospitable females began to pelt us with stones. We stood not upon the order of our going, but went.

One of the dishes often prepared for me in the wilds was a very tasty stew. Not inquiring too closely into its ingredients, I found it excellent and ate it with great gusto until the day I fished up a small skull—a monkey's skull. The revulsion was acute; I lost my taste for stew.

The most unpleasant experience I had on this trip was when I started alone with two half-breeds as guides from Cali to Buenaventura. In order to avoid a longer stay than was absolutely necessary in Buenaventura to await the arrival of the steamer I was to take for Panama, I delayed my departure from Cali. I had given myself but little spare time in which to make the trip. After we left Cali the mozos (guides) began to indulge in too much liquor and became lazy, stubborn, and even impertinent. At times both of them, against my earnest protest, would jump on the pack mule carrying my baggage. I was compelled to apply the whip to them to enforce obedience. Fortunately they carried no gun, their sole weapon being the machete. If they had dared they would have killed me; but they were afraid to attempt this, knowing that I was armed. I spent three sleepless nights in fear of an attack, but I succeeded in reaching Buenaventura with barely an hour to spare before the departure of the steamer.

I returned to New York, richer in experience, and with a good fee, but with no gold discoveries. However, the natives must have been right in their belief that at one time there had been gold somewhere in the vicinity. Years later I sent an engineer back to this same section to examine some of the alluvials with the intent to start dredging operations. The alluvials were disappointing, not carrying sufficient gold to warrant commercial exploitation. But in boring test holes in the bed of a long dried-up stream, the engineer dug up some gold fishhooks from a depth of about forty feet. Exceedingly thin and curiously wrought without barbs, these relics of

a forgotten civilization must have lain hidden for centuries. But no one could make a fortune out of a few gold fishhooks.

In January of the next year, 1885, I made another prospecting expedition southward. Some clients of mine, hearing of extensive auriferous gravels in the northeastern part of Guatemala, had engaged me to examine them.

When I arrived at New Orleans, I found that the regular steamer from there to Guatemala had been wrecked off Yucatan two weeks before, and a small one had been put into temporary use. The moment we reached the Gulf of Mexico we encountered heavy seas, and by the end of the first day our little craft was obliged to stop frequently for engine repairs. The second day out the storm greatly increased in violence.

Besides myself and my assistant, Garthwaite, the only passenger was a man who was on his way to Guatemala to give exhibitions of landing by parachute from a balloon. The captain of the steamer, calling the three of us together, told us quite frankly that we were in a dangerous position, close off the rugged shore of Yucatan. In fact, we were near enough to see the wreck of the other steamer. He intimated that, if our engine trouble became more acute, there might be some doubt of our being able to survive the storm.

At this the balloonist said, enthusiastically: "Cap, I've got an idea. My balloon's here on board, and I can gas her up in a few minutes. With the wind blowing the way it is inshore, it'd be a cinch to take a half dozen of us off."

I could not see exactly how this was to be accomplished in so brief an interval, particularly as the ship was rolling and pitching at such a rate that even the cook could not function in the galley. However, I was not called upon to put the problem into words because the captain replied hastily to this interesting offer: "Not on your life. My crew, especially the niggers, are so frightened already that your idea would finish them. I'd have a dead crew on my hands and we'd land in hell."

This was not cheering news but, since there was nothing to be done about it, I went to my cabin and wrote a short will and farewell letter to my family. This I carefully placed in a bottle and sealed it with a cork, ready to throw overboard in the final emergency. Then

I uncorked another bottle and settled down to read Prescott's *Conquest of Mexico*, a book I have found so diverting on other occasions as to take my mind off imminent danger and which proved equally efficacious in this emergency.

Though the steamer was so long overdue that it had been given up as lost in the storm, we finally arrived safely at Belize in British Honduras. From there the voyage to Guatemala was uneventful.

My acquaintance with the balloonist naturally ripened during the voyage. He told me he had been giving exhibitions in New Orleans, which culminated on Thanksgiving Day with a descent in his parachute. The wind had taken him off his course so that he involuntarily landed on the roof of a little negro shack. The last thing he remembered was breaking through the roof and falling on the table, around which the dusky inhabitants were enjoying their Thanksgiving meal. So surprised and frightened were they that they jumped up and left him there unconscious for some hours. He was laid up for several weeks in the hospital and had only just recovered before starting for Guatemala.

Two years afterwards I met him again, giving an exhibition in San Francisco. This time he was carried out into the bay in his parachute, but was fortunately picked up. At Honolulu, some time later, his luck deserted him; he was blown far out to sea and was eaten by sharks before rescuers could reach him.

In order to reach the Guatemalan mines I had been sent to examine, I had to descend a river in a dugout made from a mahogany log. As my four natives paddled along, I noted that some of the wood of the country sank in the water. I was even more interested to find that the pieces of rock which I broke off floated. They were pumice stone!

After a long tedious day the monotony of which I relieved by shooting at alligators, darkness stopped our advance. As our dugout approached the shore the natives shouted, and I fired my gun repeatedly so that the noise might drive off the alligators on the bank of the river. Then we camped for the night. As it was too dark and rainy to collect wood and build a fire, we had to be content with digging into our supply of canned food. Notwithstanding my fatigue, I could not get to sleep. The monkeys in the trees kept up

a continuous chatter. Occasionally they became bold enough to drop twigs on us; fortunately there were no coconut palms handy. The next day we arrived at the place where the promised horses were waiting, and after two days' ride over marshy ground reached the gravel deposits.

While there was obviously some gold present, there was at that time no process known which would warrant working the gravel for such a small recovery; gold dredging was a subsequent development in the treatment of auriferous gravels.

After a few days' work, I was prepared to make my report to my clients. Garthwaite returned via Guatemala City and the Pacific coast to San Francisco, while I headed for New Orleans. Before I started I made a side trip to the wonderful Mayan ruins at Quirigua, not far from where I was examining the gravels. Although the ruins were so overgrown by jungle that it was difficult to get much of a view, what I did see of them overwhelmed me by its grandeur. My impressions are not so clear as they might have been had I not fallen ill of a bad case of malaria, and found, to my consternation, that Garthwaite had carried our medicine kit with him to San Francisco. My temperature was so high that it was impossible for me to travel and I was consequently obliged to accept shelter in a little two-room hut occupied by an entire family of half a dozen negroes. They gave me a place to sleep on the floor, the only space available. Although their resources were limited, no one could have exceeded their kind hospitality, not even in our own South.

In this hovel I remained for two or three days until I had somewhat recovered, and then started out on horseback for Lake Isabel. Although I was so weak that I could not ride more than a mile or so at a time before dismounting for a rest, I finally reached the lake, where I was fortunate enough to find a dear old Californian couple who kept a store. The kindly old lady took me in hand and dosed me with calomel, quinine, and other medicines and after a few days I was well enough to resume my trip back to the States.

It was months before I was entirely recovered, and I had to turn down many opportunities for mine examinations which would have greatly increased my bank account and, perhaps, my reputation. Some years later I discussed malaria with Henry M. Stanley, who

158 The Autobiography of John Hays Hammond

headed the expedition sent by the New York *Herald* to Central Africa to search for Livingstone. Stanley was exposed to all kinds of malaria during his life, but he told me that the worst case he ever had was contracted in the State of Arkansas.

Be that as it may, I am quite content with the memory of the severity of my own Central American brand!

CHAPTER TEN

All in the Day's Work

THE MULATOS SWINDLE—I BECOME INTERNATIONAL UMPIRE—MY COWBOY BODYGUARD—GENERAL IRELAN OF THE HORSE MARINES—A DANGEROUS EXAMINATION—THE SALTER SALTED—THE GREAT DIAMOND HOAX—DOWN IN ABANDONED WORKINGS—UNDERGROUND BY BOAT

*I*n 1890 the Mulatos mines in Sonora, Mexico, were purchased from the Aguayo brothers by a syndicate composed of American and English investors. The price agreed upon was \$1,500,000 United States currency, of which \$750,000 was paid over immediately and the remainder left in escrow to be remitted at regular intervals.

No sooner had the property been taken over by the syndicate headed by the successful California mining firm of Hayward and Hobart, than it began to appear that some deception had been practiced. For example, the mill run at once showed ore of little value. There could be no doubt as to the integrity of Dan Gillet and Alexis Janin, the San Francisco mining engineers who had made the examination on behalf of the purchasers; they would seem to have taken the usual precautions to verify their tests. Nevertheless, the mill runs indicated that the sale was a swindle.

The mystery was soon solved. After the original payment had been made to the Aguayos, one of their Mexican agents in the transaction became dissatisfied with the amount of his commission. Upon being refused further compensation by his employers, he let the cat

out of the bag and confessed that the mine had been salted by its former owners.

Now, there are many ways in which ore can be salted, some of which are very ingenious. In this case it was done either by inserting a fine tube through the mesh of the sacks in which the expert's samples had been placed and blowing additional metal dust into the sacks, or by a solution of the metal injected by a hypodermic needle. Gold added in this way obviously increased the gold content in these ore samples upon which the value of the property was estimated.

At this time General John Eagan, who subsequently figured during the Spanish-American War in connection with the "embalmed beef" scandal, was stationed at San Francisco. When he heard of the Mulatos fiasco he immediately communicated with the firm of Hayward and Hobart. He informed them that he was a close personal friend of President Diaz and said he felt sure that if it could be proved to the president's satisfaction that the deal had been an out-and-out swindle on the part of the Mexicans, Diaz would order a cancellation of the sale and insist that the money be refunded.

Accordingly, General Eagan was sent to Mexico City to discuss the matter with Diaz. He explained to the president how carefully the examination had been made, and that the American firm involved was not only reputable but among the most important in the United States; that they were in no sense gamblers in mining stock, but bona fide scientific developers of mining properties. In spite of having taken the usual precautions, they had been shamelessly swindled, and the general pointed out that if the injustice were allowed to go unrebuked and unpunished, the logical consequence would be to keep American money out of Mexico, and perhaps English as well, for English investors were associated with the Hayward and Hobart firm.

This touched Diaz's cardinal policy. He told Eagan that if it could be clearly shown that the Mulatos ore was of such inferior grade that it could not be worked profitably, and was far below the grade indicated by the syndicate's own experts, he would compel the Aguayos to refund the money already advanced and would order a legal cancellation of the sale. The fact that the Aguayo brothers belonged to

the anti-Diaz political faction in Sonora accounted perhaps for this responsiveness to General Eagan's appeal.

When Eagan returned with this assurance, the syndicate naturally made haste to follow it up. To prove the honesty of its intentions, the syndicate offered to defray the cost of examination by a disinterested expert whom Diaz was asked to name. To my gratification, Señor Romero Rubio, the Mexican minister at Washington, presently notified me that I had been selected, and formally invited me to undertake the mission.

As I had not met Diaz, I could not imagine how I had come to be chosen. Eventually I learned that Señor Rubio, who in addition to being Mexican minister at Washington was also Diaz's father-in-law, had applied to James G. Blaine, then our secretary of state, for advice on the matter, and Blaine's recommendation of me had been accepted by Diaz.

The affair was given much publicity, not only because of the fraud, but also on account of the appeal to the president of Mexico. In Sonora the excitement was intense, for the Aguayo brothers through subsidized newspapers and circular letters had spread the report that they were being victimized by unscrupulous gringos who, with characteristic Yankee cunning, were endeavoring to impose upon the trusting minds of the poor Mexicans.

I realized that the trip would be attended by considerable personal danger, for the Aguayos would certainly not be disposed to let me stand between them and their fraudulently secured gains. Nevertheless, I lost no time in accepting the offer. By chance, I talked over the expedition with General Alexander McDowell McCook, one of the famous fighting McCooks, who was stationed in California at that time. General McCook was not only a friend of mine but he was also a close friend of Governor Luis Torres of Sonora, and he offered to secure an escort of Mexican soldiers to accompany me to the mines. I thanked the general for his suggestion but declined the offer, recalling Juvenal's question, "*Quis custodiet ipsos custodes?*" One might well ask who would guard the guards themselves when one had to do with the military arm of Mexico.

I still felt that it would be unwise to make the trip into Mexico alone; therefore, through Dominick Broden, a cowboy I had known

in Arizona, I secured a bodyguard of American cowboys. Although only eight in number, they constituted an army. Each in himself was sufficiently bold and adventurous to storm Chapultepec, while the notches on the pistols typified their standing in the matter of expert use of firearms. From the governor of California I obtained leave of absence for the state mineralogist, William Irelan. This man was noted far and wide through the West for his integrity, his great skill as an assayer, and his vast, irrepressible good-nature.

Having finally made up a party which seemed formidable enough to brave even the wrath of the Aguayos, and having completed careful preparations, we set forth.

Even before leaving American territory there occurred a humorous prelude to the more startling adventures that were to follow across the border. When, at the time appointed for the start, we met in the little town of Benson, Arizona, we discovered that we should be obliged to pass the night there; no train left for Ortiz Station before morning. I immediately hastened to the one and only hotel, where a supercilious young clerk flatly informed me that he could give none of the party accommodations. The cowboys, of course, did not matter; they would not have known what to do with a hotel bedroom if they had had one. But I knew that Irelan, of Falstaffian figure and unused to roughing it, would not take kindly to the idea of passing the night on the floor.

Since soft persuasion did not affect the clerk's obduracy, I had to resort to guile. Accordingly, I assured him that, so far as I was concerned, I did not care what happened, but I did hope that he would "be able to find comfortable quarters for General Irelan."

The clerk swallowed the bait completely.

"What?" said he, no longer indifferent. "You don't mean the famous General Irelan!"

I replied that, as I knew of no other individual by that name, it must be the same.

"And who are you?" asked the clerk.

Willing by that time to go to any length, I promptly said I was the general's private secretary.

The clerk thereupon disappeared and presently returned with the proprietor, who demanded visible proofs of my association with

greatness. Together we went out to the general, who was placidly sunning himself. He gazed upon us benevolently while the delighted proprietor introduced himself and hastened to assure his honored guest that, if he would consent to wait for a few hours, he and his secretary would be well provided for. The general acquiesced with entire complacence, and when we returned from a stroll we found ourselves ensconced in no less a spot than the proprietor's own room, with a delicious meal awaiting us.

Seldom, if ever, had I realized what possibilities lie in titles, while that of "general" was particularly one to conjure with in the Indian-fighting West of those days. At any rate, I had conjured well. As a matter of fact, so successfully had I wrought that my friend was known far and wide as General Irelan until the day of his death.

Just across the border at Nogales, I was met by a Mexican who had been a classmate of mine at Freiberg, Baudelio Salazar. He begged me earnestly not to make the trip to Mulatos because he was well acquainted with the Aguayo brothers and knew that they were desperate. He told me, although I was already fully aware of it, that they had succeeded in inflaming public sentiment against the syndicate, and that for me to proceed with the examination under such circumstances would be suicidal. He was so determined that I should not go on that he threatened to wire my wife, telling her the true nature of the risks I was running.

I reasoned with Salazar that it was now too late to alter my plans; that to turn back at this point would be a confession of rank cowardice; and that, finally, an immense amount of money was involved in the result of the examination, to say nothing of my own reputation. No matter what happened, I must proceed.

First, I went alone to Guaymas to see my old friend Alexander Willard with whom I desired to discuss plans, and whose help I needed in outfitting the expedition. He, too, warned me of the dangers attending the trip, and urged me especially to take every precaution against the chance of my wild cowboys becoming embroiled with Mexican soldiers. They were such a mad crowd that at any moment the eight of them might take it into their heads to declare war on all Mexico. Furthermore, if they did too much drink-

ing and got into a brawl with the soldiery, it might give the Mexican government cause to interfere.

Since it had been stipulated that the examination must take place within a limited period, now almost expired, we had no time to lose. To hasten matters, it was arranged that Willard was to telegraph the result of the examination to Diaz as soon as I returned to Guaymas with my report. The following day I found myself once more at the all-too-familiar Ortiz Station, whose agent was considerably more sober than his predecessor had been.

Although constantly on guard to keep the cowboys from getting into trouble with any of the Mexicans, I knew they were fairly itching for a chance to start something. One night we camped near a place where tequila was manufactured. The cowboys had a very sociable evening and it was with difficulty that I got them together next morning for an early start. In fact, I had to go around and kick them out of their blankets, one by one. Just as the outfit was ready to break camp, I noticed a large demijohn strapped on top of the baggage on one of the mules. I asked the cowboys what was in it.

They answered checkily, "We'll give you two guesses."

"One's enough!" I said. I pulled out my pistol and the demijohn disappeared in a shower of glass.

To the accompaniment of indignant shouts, the tequila ran to the ground. Before the boys had had time to work themselves up into any concerted action, I read them the riot act and gave them to understand that I was running the party and would have no nonsense.

Shortly after leaving the railroad we learned that a regiment of Mexican troops had been sent down to the border of the Yaqui country to suppress a new Indian uprising. Since our route lay near the scene of trouble, I decided to spend the second night after we left Ortiz Station as near as possible to the Mexican encampment. Recalling the magical effect of the title of "general," I sought out the colonel in command, introduced myself to him, and asked him whether he would have any objection to General Irelan and his party spending the night at his headquarters.

With great animation he replied: "On the contrary, I shall be

delighted to meet General Irelan. I have often heard of him and will do whatever I can to make his stay here comfortable."

In due time, therefore, I presented the general himself, having prepared him for the cordial reception he might expect. It was not necessary for me to impress upon him the official dignity and martial air he should exhibit. Indeed, before the evening was over I suspected that after the many toasts he had drunk to the prosperity of our sister republic, Irelan would have looked patronizingly upon George Washington himself.

It was long after midnight when we adjourned to the tent provided for our sleeping accommodations. Between Irelan's snoring and the near-by military band which indefatigably played in our honor, I had but little sleep. When we left in the morning the colonel gave his military colleague an open letter to all Mexicans, bespeaking their cordial hospitality for "the great American General Irelan, a sincere friend and admirer of Mexico."

Things went well the first day out; the country proved level and the general was being conveyed in a comfortable buckboard. But on the following day we reached a more rugged country where the only routes were by mountain mule trails. There we found awaiting us a huge mule, especially selected because of his strength, on which the general was to be transported over the dangerous trails. In spite of Irelan's many attainments, he had never learned to ride. Consequently, we were confronted with the serious problem of how to get him upon a mule, since his unwieldy bulk was hardly suited to the ordinary ways of mounting.

We finally evolved the following method: We selected a large boulder which we assisted the general to climb, and finally located the mule as close underneath as possible. The plan then was for the great man to descend into the saddle from this point of vantage. The mule, with characteristic perversity, had his own ideas, however. At the critical moment he was inspired to move out of reach of the general's right leg—the general was handicapped by unusually short legs. We had many rehearsals, and it was necessary to try four or five different boulders and to push the mule within reach by main force applied from the off side before ultimate success was attained. The total force of cowboys was eager, of course, to lend

their assistance to this noble endeavor until finally, all of us working shoulder to shoulder, we mounted the general.

To dismount—or rather, to be dismounted—was an even more dangerous experience for him, as when riding he could retain his equilibrium by holding on to the pommel of the saddle. He would finally come to earth in a huge tottering mass; then, his fatigue overcoming him, he would sink to the ground and there lie expressing his exhaustion in pitiful groans. It was always a considerable time before he felt able once more to resume an upright position.

After watching this exhibition of horsemanship, the Mexicans we had employed as *mozos* came to me and asked if an American general could not usually ride better than that. I was afraid they might discover that Irelan was only a make-believe, but I succeeded in banishing all suspicion by explaining that he was a general in the navy, belonging to the Marine Corps. Under the circumstances, I, of course, did not mention the horse marines.

When we arrived at Mulatos we were given an unfriendly reception by the inhabitants of the little village clustered about the mine. Consequently my examination, which was chiefly confined to the large vein on the outcrop, had to be made under an armed guard of cowboys.

Here, as in the majority of Mexican mines, there were no ladders; one had to climb notched poles made from trees six or eight inches in diameter, into which grooves had been cut to give the miner a foothold. These poles were tilted slightly and supported in the shaft by scaffoldings made from light timber. The Mexican miners preferred these chicken ladders, as we called them, to American ladders. Since they went barefoot, or wore flexible garauches, the rungs of our type of ladders were difficult and painful for them to negotiate, particularly when carrying heavy loads on their heads. In time the notches became smooth from constant wear, and were consequently ill adapted to American boots.

After ten days of working from early morning until dusk, I completed my survey, and Irelan was ready with his assays on the value of the ore. The results of our examination confirmed the fears of the syndicate. We found that the large ore bodies which had been represented as carrying gold to the extent of several dollars per ton

in reality contained but a few cents per ton. The sale had undoubtedly been a complete swindle.

Owing to the threats made against us, on the night preceding our departure we slept in the company's office, well barricaded. Many drunken Mexicans passed shouting, "Mata los gringos!" which we all understood was no idle gesture. The next morning I called the cowboys together and told them we would leave immediately after lunch. They protested at this, pointing out that the trails were very slippery, which was undoubtedly true since it had been raining for days. To strengthen this argument, they insisted it would be foolhardy to attempt to travel after dark. In effect, they flatly refused to leave that day. I was well aware of the reason behind their actions: each and every one of them had a generous-hearted señorita who had promised him the evening.

As time was a serious consideration, I informed the cowboys, equally flatly, that the expedition would start at two o'clock, and that those who were not at hand would have to foot it back, since I would be taking all the saddle animals with me.

Realizing I meant exactly what I said, but breathing all sorts of threats and in an ugly mood, the cowboys reported on time.

Our return trip began in a heavy tropical rain. We kept on throughout the first night with the help of our guide, Jimmy Owen, a little Virginian who had been in that country many years and who knew every cow path in the region. Instead of taking the usual mule road, we followed the devious cow trails. These were often used to smuggle gold out of the country to avoid its being stolen by revolutionists.

At intervals I could hear some of the cowboys damn me for a fool tenderfoot in attempting to get over the mountain under such adverse conditions. When in the dark a projecting limb of a tree nearly dismounted some rider, there was an especial outburst of profanity. It was as much as I could do to restrain myself from replying to some of their taunts, but I decided that, in such a situation, silence was golden. About four o'clock in the morning we stopped for a cup of coffee, and then pushed on until noon when we rested and had a substantial meal. By feeding the cowboys well I kept them from becoming mutinous.

When we arrived at Guaymas after a fast "record" trip of four and a half days, I handed my report to Willard, who immediately transmitted it to President Diaz. It amply confirmed the statement of the American and English syndicate that the property had been salted, and in due course Diaz compelled the Aguayo brothers to take back the property and restore the payments already made on account.

It was such instances of justice and fair-mindedness that made the Diaz government respected by the world at large as no other Mexican government had ever been.

Salting mines was by no means confined to Mexico; in our own country the practice was equally prevalent. The methods employed were often exceedingly clumsy, but occasionally were remarkably clever.

One primitive means of salting was to load a shotgun with gold dust and then shoot it into the quartz where the face of the vein was exposed. The expectation was that the engineer would break off samples from some of these salted faces and use them for assaying. In other cases, where the face of the ore was wet and muddy, the practice was to gouge out the original quartz and replace it with ore showing a much richer gold content. Then the whole face of the vein was mucked over so that the counterfeit section would not show. More difficult to detect was the method by which gold was dissolved in acids and the mixture sprayed not only on the quartz, but also on the dump containing recently mined ore.

Other attempts, even more intricately devised, have been made to salt mines. For example, a small core of gold has been inserted in the pestle to be used by the assayer, or gold dust has been placed in the cigarettes smoked by the helper who then purposely allowed the ash to drop into the samples.

Although punishment for salting is now provided by law, in the old days there was no penalty involved beyond the loss of the gold used in the deception. Under any conditions, salting resembles counterfeiting. The engineer, like the government expert, must, in self-defense, by his own scientific methods detect any attempt at fraud. He has now developed means of protection more efficient than any method of salting can surmount; in fact, any prominent engineer-

ing firm which today allowed itself to be taken in by a salted mine would be the laughingstock of the profession.

I recall one case of salting in a California mine I was sent to examine. Before reaching the mine a friend living in the community had informed me that its Italian owner had an unenviable reputation, and warned me that he would probably make an attempt to salt my samples.

I was received cordially enough on my arrival and given a delicious Italian dinner.

There was a broken-down old wreck of a mill operating on the property and the owner was suspiciously insistent on having the test for the value of the ore made by a mill run, which, if honestly conducted, would have been admittedly more satisfactory than the ordinary method of sampling and assaying. Ostensibly to guard against fraud, I placed my own millman in charge, and posted notices that no one would be allowed inside the building. I then selected sections in the mine from which I had the ore extracted by the workmen and sent to the mill. The owner, evidently assuming that I was a novice in my profession, dropped gold in the cars which carried the ore to the mill. Meanwhile, I was personally getting another set of samples which I carefully sealed in sacks and sent by Wells-Fargo to an assay office in San Francisco.

The owner asked me pertinently why I needed the extra samples, which in the aggregate amounted to only a few hundred pounds. He said the tests of the hundred tons of ore then going through his mill would give a much better idea of the value than the small samples I had selected. To this I assented but astutely pointed out that his rattletrap mill might not be able to effect the proper extraction of the gold, and, in case the returns should fall below his statements as to the value of the ore, my samples would prove useful.

When I had finished my sampling and had run about a hundred tons of ore through the mill, the mill returns were exceedingly high. The salting had been most effective. I had made what is called a cleanup in the mill, and carried away the amalgam; that is, the gold included in the quicksilver used to extract gold from ore. In San Francisco I had the amalgam retorted, and obtained therefrom a large ingot of gold. A computation showed that the ore, judged

by the mill returns, amounted to the unusually high figure of twenty dollars a ton, while the assays I had made showed the value to be slightly over one dollar a ton. I presented the ingot to my clients, who were happy to find that its value covered not only my fee but also all other costs involved in the examination of the mine and left a dividend to provide a banquet for the prospective victims. I then wrote my report, showing exactly how the salting had been conducted, and exposing the owner's dishonesty. According to previous arrangements, this report was forwarded to him by my clients.

The mine owner was furious and threatened to bring suit for recovery of the value of the gold bar. I wrote him that the less he said about the nature of the examination and of my report, the better chance he would have to swindle some less suspicious victim. He evidently agreed with me in this, since he made no further attempts to recover the gold bar in dispute. This was a good case of the salter salted.

The only mining swindle comparable to that of the Mulatos mine was the great diamond hoax in 1872. Two rascally mining prospectors had bought in England several thousand diamonds in the rough, all of them small, and had planted them in an almost inaccessible part of Wyoming. They succeeded in having a company formed in San Francisco, on the directorate of which were many of the most prominent business men of California.

The examination and favorable report on the diamond area by Henry Janin caused the greatest excitement, and there was a rush to acquire shares in the company. Clarence King had been over this ground a short while before for the United States Geological Survey and had found no diamondiferous formation. If he missed it, he had committed a serious error. Since his reputation as a geologist was at stake, he went back to make a re-examination. It took him little time to discover what had occurred. He proved conclusively that everyone connected with the affair had been duped. Taking with them the hundred thousand dollars they had deftly gathered from the public, the prospectors had disappeared. The shrewd business men of California were so abashed over the way

they had been fooled that they judged it unwise to advertise their shame by making too great an effort at pursuit.

The ordinary difficulties experienced by engineers in examining mines are greatly increased when exploring abandoned workings. For example, there is always danger because of the possible caving in of earth, the falling of loosened timbers, or the breaking of rotting ladders. Another unpleasant feature is the omnipresent animal life. Engineers have often found a dead coyote, occasionally even a live one, that had fallen into old mine workings, and the pits are almost always crawling with reptiles, frequently rattlesnakes or scorpions.

On one occasion an assistant of mine in Johannesburg, J. A. Chalmers, English geologist, whom I had taken with me to Rhodesia, was lowered to the bottom of a mine shaft about thirty feet deep by two Matabele workers. When he reached bottom he saw an adder ready to strike. Chalmers signaled to the men above, yelling to hoist him up. After he had been raised about ten feet or so, his foot slipped out of the noose and he fell back to the bottom of the shaft. The two natives were greatly alarmed and hastened for help to a neighboring prospect of white men, who came as quickly as possible. One of the white men was lowered to the bottom of the shaft to see what was the trouble. He found Chalmers unconscious. With difficulty they hauled Chalmers to the surface and he was taken immediately to the nearest mining hospital where it was found that several of his ribs were broken. It was some time before he recovered consciousness, and he then told those about him of his seeing an adder in the shaft. The serpent did not hit him when it struck. The white man who had gone to his rescue saw nothing of the adder, and was greatly surprised to hear the story. Since Chalmers was a total abstainer, he could not have seen snakes through excessive drinking. Now the question is, what became of the adder? The most plausible explanation is that the snake was as much alarmed as Chalmers and sought refuge in some crack of the shaft.

In 1886 I went to an abandoned district, a long day's drive from the town of Magdalena on the Nogales-Guaymas railroad. My only companion was the prospective seller, an American mine promoter. When we reached the mine at dusk we found that the provisions and water that were to have been supplied had not been left for us.

The promoter at once started back to the nearest village to get food while I was left alone for the night, about thirty miles from any habitation.

The mine was located in a limestone district full of great caverns, alive with bats, which made it extremely difficult for me to sample the ore bodies. The bats swooped against my candles, sometimes putting them out and always spattering me with hot grease. For hours I worked away in the passages and caves with no company but these objectionable squeaking, fluttering creatures.

Frequently during the night I climbed to the surface of the mine for relief from the fetid air. I took particular pains not to venture far from the shaft, because Indians had recently been active in the neighborhood. The stark solitude of the desert spread for miles about me under the starlit heavens, and the silence was unbroken save for the occasional sharp bark of a coyote. In my loneliness the night seemed unending.

The mine promoter returned with food in the morning, and in two days more I finished my work and went back to Magdalena. There I was paid two hundred and fifty Mexican pesos in coin to cover traveling expenses. The peso, then worth fifty cents, is larger than our silver dollar, and I had to carry this great weight of money with me out of Mexico.

The night I took the train for Nogales a fiesta was being held at the border and the coaches were filled with drunken Mexicans. There were no Pullman cars, and I had to sit in a day coach. Loaded down with the silver coins, and in constant dread lest their jingle betray the fact that I had this treasure on my person and so make me a good prospect for abduction, I sat like a statue through the whole night but, with my usual luck, escaped notice and reached Nogales in safety.

Mexican mines are not the only ones which have afforded me exciting moments. One of my most hazardous experiences occurred in the examination of the Pioche mine in eastern Nevada. In former days the Pioche had been a well-known silver-mining camp, but water from underground springs seeped into the mine in such quantities as to make pumping expensive. The rising level of the water

and the dropping price of silver caused a cessation of work. The mine had been closed for twelve years prior to my visit in 1890.

Accompanied by my assistant, E. A. Wiltsee, I made a trip to the mine in the dead of winter to ascertain for my clients if any mining possibilities remained.

The Pioche district was about a hundred miles from Milford, Utah, then the nearest station. From there Wiltsee and I drove into Pioche in an open buckboard on which runners had been substituted for wheels because of the deep snow. It was a bitterly cold trip and, in spite of my huge buffalo overcoat, I was nearly frozen. We were frequently obliged to slow up the horses so that one or the other of us might get out and run alongside to keep our blood in circulation.

When we finally reached our destination, I found that preparations had been made for my examination; the old engine had been rigged up so that we could descend to the bottom of the shaft in an iron bucket.

About daylight Wiltsee and the foreman, who had formerly been in charge of the mine, and I were carefully lowered in the shaft. The hoisting engineer, fortunately, was competent to exercise the requisite care to prevent the rope's swinging too far from side to side in the shaft and possibly knocking loose rocks or timbers on us. After considerable difficulty, we reached the twelfth or water level, and managed to get out the eight-foot collapsible canvas boat which we had in the bucket with us. By the light of our candles, we opened and floated the boat; then we climbed in and started for the interior of the mine.

Before getting into the boat, however, I found that the water was about six feet deep. Wiltsee was six feet four and could walk safely with the water only up to his neck, while it would be over my head and swimming would be out of the question. I told him, therefore, that if the boat sank I would depend upon him to keep cool and let me put my hand on his shoulder until I could work along the level to a place of safety. This prospect appeared to perturb him exceedingly; his face loomed white and distressed out of the darkness. I added that, if in an emergency he showed any signs of seeking his

own safety without reference to mine, I should have no compunction in grabbing him firmly around the neck.

Luckily, our maps of the underground workings were accurate and with their aid we reached our objective. Since we had to navigate about half a mile through water which at the beginning reached almost to the top of the level, we were obliged to crouch down and propel the boat by pushing on the roof of the tunnel, while at the same time trying to keep it from bumping into any jagged rocks along the sides. There was additional danger that buckled rails might puncture the canvas. Wiltsee was greatly relieved when after a half mile he discovered that the water was so shallow that it would not come above my shoulders.

By such slow method of locomotion we came to the end of the level, where we found an upraise: a little shaft which connected the twelve hundred with the eleven hundred foot level. After fastening our boat and climbing up this raise, we were able to gain access to the old workings of the mine.

We had estimated that it would take about two days to finish the examination and had taken with us only our lunch, intending to return to the surface in the late afternoon, and then to make a final trip the following day. By the time we had reached the eleventh level, however, we realized that the difficulties and dangers were too great to warrant a second trip. We decided to work right through until the examination had been completed. For a long time we were obliged to crawl through narrow drifts and crosscuts, and in this fashion covered several thousand feet of underground investigation.

About midnight we completed the examination and started back for the main shaft in our boat. Proceeding with the greatest caution, we reached the bottom of the shaft from which we had disembarked in the early morning. There we abandoned the boat, hauled ourselves into the bucket, and, after much shaking of the rope, attracted the attention of the engineer on the surface. Several loose rocks fell about us as we ascended very slowly but, by standing on the rim of the bucket, and each using one hand to keep it from touching the sides of the shaft, we prevented it from catching on any of the protruding timbers. We had had enough of the water below and cer-

tainly would have been averse to being dumped into it from any great height.

At last we reached the surface, to find a cold, sparkling, starlit night. As we stepped into the icy air, we were met by a dozen or more people assembled from neighboring farms. After waiting for many hours beyond the time of our expected return, they had about given us up for lost. Although our courage had held out all through the dangerous experience, it was a great relief to find ourselves again on the earth's surface. It required several stiff drinks to produce the necessary favorable reaction.

While recovering my spirits, I was alarmed afresh by the news of a messenger's having been sent to the nearest telegraph station to wire the newspapers that I had met with disaster in the mine. I immediately despatched another messenger with a telegram to my wife advising her that I was well and would be at home in a few days. I gave this rider instructions to break all records for speed, and so well did he accomplish his task that my wife received my message before the newspapers published their harrowing story.

CHAPTER ELEVEN

Grass Valley and the Coeur d'Alene

GRASS VALLEY—FINDING A LOST VEIN AND DEVELOPING A FAMOUS MINE—A SMALL FEE AND A LARGE ONE—THE BUNKER HILL AND SULLIVAN—THE APEX RULE—I TACKLE YELLOW DOG SMITH—BLACKMAIL LITIGATION—THE TEST OF A WONDERFUL MEMORY—KELLOGG'S BURRO—WEALTH OF THE COEUR D'ALENE—STRIKES AND MARTIAL LAW—THE AMAZING STRATEGY AND COURAGE OF A PINKERTON DETECTIVE

*J*n 1884 I became consulting engineer to the mining department of the Union Iron Works of San Francisco, the largest on the Pacific coast. I retained this connection for nine years—until I went to South Africa—and it offered me the opportunity to make a thorough study of the production costs of mining machinery. Later, when my duties included the ordering of equipment worth millions of dollars, this knowledge was of great economic value. One of my problems was the devising of methods by which machinery could be delivered to mills and smelters in the mountain regions of Mexico and South America, where the only means of transportation was by mule. We overcame this difficulty by planning the packing of the machinery into sections, each of which weighed no more than three hundred pounds, in other words, the loading capacity of the average mule. Airplanes have developed this idea

still further and have carried great dredges, piece by piece, to the most inaccessible parts of New Guinea where they have been re-assembled and are now operating.

Among other services I rendered to this company was assistance in securing for them the contract to build the battleship *Oregon*, famous in the naval battle during the war with Spain. It was through my colleague, Walker Blaine, that Irving M. Scott, general manager of the Union Iron Works, was presented to James G. Blaine, at that time secretary of state. Secretary Blaine appreciated the importance of having a battleship constructed on the Pacific coast, and of establishing shipyards at San Francisco. It was a wise decision on the part of the government to award the Union Iron Works the contract, though their bid was not the lowest one received.

The last time I saw Walker Blaine was when I visited his home in Augusta, Maine, in the middle eighties, after my return from Colombia. I was on my way to examine some gold mines in Nova Scotia and Walker met me in Boston and accompanied me as far as Augusta. He asked me to visit him on my return from Nova Scotia and I accepted his invitation.

A few hours before my train reached Augusta on my return trip I was handed a telegram from James G. Blaine telling me that Walker had been called away for a day or two to visit a friend who was seriously ill, but that he would endeavor to entertain me until his son returned. Mr. Blaine met me at the railway station in Augusta in a one-horse buggy and after showing me the interesting sights of the town drove me to his home.

At this time there was considerable tension between the United States and Canada over fishing rights. I had got all the information I could on this subject, hoping to impress Mr. Blaine with my knowledge. A favorable opportunity came one evening at dinner when there were present several men prominent in Republican politics in Maine. I was very impatient lest the conversation would not turn to the fishing controversy, but finally it did and I gave quite a discourse embodying extensive statistics. The guests seemed interested in what I had to say. Mr. Blaine then took up the subject and was very considerate in exposing my superficial knowledge.

I felt greatly embarrassed, but I am sure I profited by the unpleasant experience.

I had thought that at least on the subject of the western silver-mining industry I could tell Mr. Blaine a thing or two, but during the next few days I discovered to my surprise that he had intimate knowledge of that subject also. This was my first meeting with Mr. Blaine, and we became friends. He afterwards showed his friendly interest in my professional career as evidenced by the help he gave me when I was consulting engineer of the Union Iron Works.

Up to 1884 I had been called in as a mining expert by many mine owners for whom I had examined and reported on properties in different parts of this country, as well as in Mexico and South America. In addition, I had been in charge of actual operations at Minas Nuevas.

My first position as a consulting mining engineer came in 1885. I was much pleased that it was for the Original Empire mine in the same Grass Valley district of California where I had made my first notes on mining practice after returning from Freiberg.

In addition to the Union Iron Works and the Original Empire mine, I soon had engagements of the same character for the North Star mine, the California Mining Bureau, and the Central Pacific and Southern Pacific railroads. Since these varied activities required that I spend much time in California, I decided to move my family back to San Francisco. It was there that my second son, John Hays Hammond, Jr., was born in 1888. I still retained my office in New York, and made frequent trips there to keep in touch with eastern clients.

My work in connection with the North Star was both interesting and profitable. This mine had once been highly productive, but the vein had been lost at a depth of a thousand feet, and thereafter for ten years the mine had been abandoned as dead. My friend, William B. Bourn, of San Francisco, owner of the first successful quartz mine in Grass Valley—the Original Empire, had been offered an option on the neighboring North Star. Not caring to take all the risk himself, he had asked my first client, Alexander Stoddard, to co-operate with him in the endeavor to reopen the property. I, as

the representative of Mr. Stoddard, accordingly made an examination of the deepest accessible levels, which convinced me that the faulted vein could easily be found and in all likelihood would develop valuable ore shoots. Basing their action in reopening the mine on my favorable report, Bourn and Stoddard engaged me as manager.

My judgment of the mine's potentialities proved accurate. After we had installed pumping and hoisting machinery, sunk the old incline shaft deeper, and run levels, we easily picked up the lost vein. Then we leased an old ten-stamp mill in the neighborhood, to which we hauled the ore. Within two years we had made enough profit to begin operations on a large scale and to warrant the erection of a modern thirty-stamp mill, the first one I built. The North Star proved a great success and produced many millions of dollars in dividends for its lucky shareholders. It was recently consolidated with the Original Empire and is still being profitably operated.

Shortly after the mill was completed, the property was sold to James D. Hague, a distinguished engineer, and his eastern clients. I resigned as manager, but continued as consulting engineer for the North Star, and the Original Empire as well.

From the beginning of our association Hague, Bourn, and I proved congenial spirits. We spent our time, as Hague expressed it, "with quartz by day and pints by night." The new owner, however, although most cultivated and delightful and an accomplished engineer of wide experience, did not have "a nose for a mine." This is well illustrated by what happened when Mr. and Mrs. Bourn, my wife, and I went on a vacation to the Yosemite Valley to enjoy some of the profits made in the sale of the North Star. We had not been gone long when I was overtaken by a frantic telegram from the unhappy Hague.

Pipeline supplying power burst. Mill shut down.
WHAT DO YOU ADVISE?

After deep consultation Bourn and I despatched the following wire to Hague:

ADVISE MENDING PIPELINE AND RESTARTING MILL.

With all seriousness Hague followed this sage, though obvious, counsel. Although endowed with brilliant qualities, Hague is a typical example of panic in the face of responsibility, a characteristic often to be observed in men otherwise rational and balanced.

Shortly after this episode, Hague was compelled to go east and offered me the job of supervising the mine during his absence. I accepted without mentioning any compensation, leaving the matter entirely to his judgment of values, and on his return some months later I was considerably taken aback at his low estimate of my worth. But since I had made no stipulations before taking the job, I felt I could offer no objections then.

Presently, however, a chance presented itself to square matters. A telegram came from Hague's resident manager saying that Hague was away and that the quartz vein had once more been lost. Immediately following this came a wire from Hague asking me to make a professional inspection of the property, and to direct the manager how to find the vein and how to continue the shaft.

I kept the manager waiting for a reply until both he and Hague had had time to become thoroughly worried. Then I went to the property, descended into the mine, and after a few minutes at the bottom, ordered the car to be hauled to the surface. As I arose from the depths, the surprised manager confronted me and inquired whether I proposed to make my report after so brief an inspection. I replied loftily that a mere glance at the situation had convinced me that the only thing necessary was to incline the shaft at such and such a different angle and the vein would again be picked up. "This," I continued, "should be obvious to any practical miner; therefore I shall appreciate your check for five hundred dollars."

The manager, aghast, stammered, "Why—I could have advised Mr. Hague to do that myself."

"But, unfortunately, you didn't!" I pointed out.

I then went on to show him that my services were analogous to those of a diagnostician, who often receives the same compensation for advising against an operation as for it. "So," I wound up, "the company's check for five hundred dollars, please." It was

forthcoming. I went away with my professional honor vindicated and the feeling that Hague had received no more than was due him for his earlier parsimony.

Hague certainly had his troubles. At one time he and Clarence King owned a small gold mine in California. After several stagecoach holdups in which the bullion was stolen, they had a fake gold brick made which looked exactly like a real one. This gold brick was given to the driver of the stagecoach to be surrendered in case of a holdup, and the real gold was carefully hidden in the coach. The camp cook was Chinese and this great wealth left lying about carelessly proved too great a strain on his honesty. One day he stole the fake gold brick and started for the mountains. He was pursued for some distance by the employees of the mine who believed that he had escaped with the real gold. Finally he was overtaken. When he began shooting, his pursuers returned the fire and killed him.

There was a saying in the western mining camps that "no mine has established its value until large sums have been expended in the litigation of its title." Title litigation, for example, cost the Bunker Hill and Sullivan mine more than half a million dollars. Although the legal expenses were very high, such charges were not uncommon.

Litigation often arises from the ambiguity and unscientific nature of the United States mining laws relating to ownership of ore bodies below the surface of the ground. In this country, it is necessary to possess only the rectangular surface area in which occurs the apex of the veins carrying the ore bodies. The owner may then follow the vein downward in its "dips, spurs, and angles," and extract all the ore found, even when the veins lead under adjoining claims. In this respect the laws of Mexico and the Transvaal are much more satisfactory. In both these cases the owner of a surface right is entitled only to the ore lying within an area defined by the vertical extension of the property boundaries in depth; that is, he enjoys no extralateral rights.

In these great mining lawsuits of the past lawyers, of course, have received the lion's share of the fees. Experts in the geology of ore-bearing formations have also been handsomely remunerated for their

investigations. After the geological findings of one of these experts was reported to the lawyers who employed him, he was retained as a witness if he could conscientiously give testimony that would further the case of his employers. There have been instances in which his conscience proved too flexible a guide.

In the early fifties there were few qualified mining engineers, and the soi-disant experts were often rule-of-thumb Cornish miners, a class of surveyors whose code of morals was frequently as primitive in its conception of right and wrong as their technical knowledge was rudimentary.

The late William M. Stewart, one of Nevada's first United States senators and greatest lawyers, was once engaged to represent one of the groups involved in a mining case which hinged ultimately on the exact location of the ore bodies in dispute. Not anticipating that the verdict would depend on the correct survey of the underground workings, Stewart was unprepared in that phase of the litigation, and was perturbed by the very positive evidence given by the so-called surveying expert, on the other side.

The case seemed to be going against Stewart, when he had an inspiration. Just as the witness was about to leave the stand, Stewart asked him how many degrees there are in a circle. The Cornish expert cast a supercilious glance at the jury and directed his answer to them: "Why, a schoolboy would know that depends upon the size of the circle." The audience burst into laughter, the judge smiled, and even the nontechnical jury perceived that the expert was an unscrupulous faker. Stewart won the decision.

In 1886, Simeon G. Reed of Portland, Oregon, asked me to manage the Bunker Hill and Sullivan mine, a silver-lead property he had recently acquired in the Coeur d'Alene mining district of northern Idaho. Though the salary offered was attractive, I felt it unwise either to give up the management of the North Star and Empire mines or to discontinue my work as a mining expert. Consequently, I declined his offer but recommended Victor Clement, and he was accordingly placed in charge of the mine.

A few months later Mr. Reed employed me to make a geological survey of this property so that I might give expert testimony in a lawsuit involving the title. I spent several weeks in a thorough exam-

ination which included many of the newly developed mining properties in the Coeur d'Alene. The results convinced me of the great potential value of the ore deposits and enabled me to boost this district when interviewed.

One of the chief witnesses for the group fighting Reed's title in the Coeur d'Alene was a widely known character known as Jack Smith, or, more colloquially, as Yellow Dog Smith. The reason for this nickname was the jaundiced-looking cur that always attended him. Surly by nature, Smith had no friends, not even among those associated with him in the lawsuits against the company. He held an undivided one-sixth interest in the outcome of the suit instituted by his associates. For legal reasons, it would have been of great advantage to the company to secure Smith's interest and deprive him of any conceivable or legitimate concern in the matter, minimizing the possibility of what they regarded as an outright blackmailing suit.

I decided to have a personal interview with the unfriendly recluse, although Clement tried to dissuade me because of the man's uncertain temper. Confident that I should have no trouble with the man, I was determined to go to his cabin, located in one of the gulches near Wardner, the local town serving the mine. As a precaution, I did tell Clement that if I had not returned at the end of an hour he might bring along the coffin.

About supper time I approached the little log cabin set off by itself in the loneliest part of the gulch. My knocking brought savage growls from the dog within. Smith pulled the door half open and peered out in obvious surprise at the presence of a visitor. While he was hesitating, unable to make up his mind whether to let me in or set the dog on me, I said suggestively, "That coffee smells pretty good, Jack." Slowly and reluctantly he kicked the dog aside and allowed me to enter.

When I had the cup of steaming coffee before me I lost no time in introducing the object of my visit.

"Jack, you'll regret it all your life if you don't accept the proposition I'm going to make you. The Bunker Hill and Sullivan is going to win this lawsuit regardless of what it costs them. They have to win if they're going to establish a reputation in this country for fighting all blackmail suits. If necessary, they'll take the case to the

United States Supreme Court. You won't gain anything in the long run. I happen to know you put up most of the money for your associates and I'm sure your confidence in them is no greater than mine. I've been told on good authority that you've said that even if you did win, you'd have trouble getting your share. Isn't that so? How much do you expect to get out of it?"

"About twenty thousand dollars," he replied.

"I'll buy it," I promptly interjected. "That's all you can get even if you do win the suit, and there certainly won't be much of that left if you have to put up money for the others."

"Maybe," he allowed, "but I wouldn't be safe here twenty-four hours if I sold out my interest."

"Well, what is there to keep you here?" I queried.

"I have some town lots in Wardner," came the reply.

"How much are they valued at?"

"Probably four or five thousand dollars."

"I'll take those lots off your hands, too," I promised.

He was somewhat bewildered by the speed of this conversation, but followed it up by inquiring, "Then what would I do?"

"You're a good prospector and I'll send you down to Arizona," I answered. "All your expenses will be paid, and I'll give you a fair interest in any property we get through you."

Without any further hesitation he stated firmly: "Mr. Hammond, I never in my life sold out a partner, and I won't do it now."

Since he was undoubtedly right and I was wrong, I said the only thing there was for me to say: "Jack, give me your hand. I think a great deal better of you even in this questionable affair" (an outright reference to the blackmail suit!), "even though it's a set of rascals you're being loyal to; and if I hadn't known that, I should not have made the offer."

The suit was tried at Murray, the county seat. The jury, the lawyers, and the witnesses were domiciled in a ramshackle wooden hotel near the courthouse. Though our official relations were none too friendly, after each court session we went back to the hotel and had drinks together. It was the custom of the day for the bars to invite their habitués to a morning cocktail "on the bar." Many of us took

advantage of this hospitality in order to create an appetite for the poor food provided at breakfast.

Jack Smith was the most important witness against us. The trial had its colorful moments. At all times the courtroom was filled with violent partisans of both sides, and we were fortunate that the judge was upright and courageous in standing for equity in the face of intense local feeling.

Each side retained the most brilliant counsel available. W. B. Heyburn, afterwards senator from Idaho, and later a valued friend of mine, represented the Smith crowd, while on our side was Judge Ganahl, who enjoyed a splendid reputation as a mining lawyer, and William Claggett, who bore and deserved the title of "the silver-tongued orator of the Northwest."

Our group had the foresight to hire a Pinkerton detective who, posing as a prospector, soon ingratiated himself with the Smith crowd. They considered him such a good fellow that they revealed to him many facts injurious to their case. When he went on the stand to testify on our side, they became so enraged that his life was in danger. As soon as he had given his testimony I drove him secretly to Missoula and put him safely on an eastbound train.

The principal difficulty with Yellow Dog Smith's evidence in this trial was its overperfection. Although he was on the stand for two days under severe cross-examination by the shrewdest lawyers in Idaho, his memory proved extraordinary. For example, one of the critical points in the case involved the priority of the location made several years before. Smith remembered every minute detail that had occurred in connection with it, throughout the five or six hours intervening between the time of starting out to locate the claims to the posting of notices. Exhibiting a truly amazing system of mnemonics, he professed to remember where the locators of our side had been, explaining this by claiming to have kept tabs on their movements. His testimony, given quietly and without truculence, was as unshakable as the Rock of Gibraltar. Had I not been certain that he was a consummate liar, I should have accepted his testimony *in toto*.

Fortunately for us, the court adjourned from Friday afternoon until Monday morning. The judge had issued an order that during

this period neither side was to have any of its representatives even approach the claims in question. The object of the court's injunction was to make sure that certain stakes marking the locations were not interfered with.

Since we suspected that Jack Smith was not so honest as his testimony in court seemed to indicate, we had him shadowed. Sure enough, late Sunday afternoon Smith was seen examining the notices on ground where he had been forbidden to trespass. During his cross-examination resumed on Monday, Smith was asked where he had been at five o'clock Sunday afternoon. His wonderful memory collapsed; he had not the slightest recollection of ever having been near the claims. He did admit he might have been "somewhere" at that time, but had no idea where. Impressed by this amazing vagueness, so much in contrast with his previously infallible memory, the jury brought in a unanimous verdict in our favor.

Some years after the Bunker Hill and Sullivan had won this suit, the company became involved in another legal action. Although Jack had no personal interest on this occasion, he possessed important and honest evidence in favor of our company's contention, which he volunteered to give. In dilatory judicial fashion, the case was adjourned time after time. Before it was finally called, the Klondike discovery exercised a lure impossible for Smith to resist. Before departing he promised that he would come back from the Klondike and give his testimony whenever the case should be tried. And this he actually did, refusing to take any compensation beyond expenses.

After Mr. Reed had won his suit over the Bunker Hill and Sullivan title, he felt unable, because of his failing health, to continue the development of the property. There was particular need of extensive new equipment, since all we had was an antiquated mill, which had been running intermittently during the litigation period.

Mr. Reed offered one large block of stock figured on the basis of a million dollars for the property, and gave me an option on the rest at about a million and a half dollars for his entire holdings. I said I was satisfied with the price and would undertake to raise the necessary funds for its purchase.

First, I wired James L. Houghteling and Edward L. Ryerson, and also Cyrus H. McCormick, of Chicago, son of the inventor, for whom

I had made several mining examinations, telling them briefly about the property. Then I hurried to Chicago. After a brief conference, these men purchased the portion of the stock I had reserved for them. From Chicago I went to New York and sold to D. O. Mills the remainder of the first block of stock. A few months later I exercised my option on the remaining shares of the company with money provided by William H. Crocker, of San Francisco, and other friends.

In July, 1891, I was elected president of the company and retained that position until I went to South Africa in June, 1893. I was succeeded by my wife's uncle, General N. H. Harris, who held the office for four years. The property has proved immensely valuable. The annual report of the company showed that up to the end of December, 1931, \$48,444,488.84 had been paid in dividends. The gross value of the ore was \$167,163,780.42, recovered from 13,925,786 tons of ore mined. The depth of the "dip" of the vein from which the ore was mined is 5250 feet (practically one mile) and the mining developments (crosscuts, drifts, "raises," and shafts) were sixty miles.

The Bunker Hill and Sullivan was discovered by Noah S. Kellogg, Phil O'Rourke, and Jacob Goetz, known as Dutch Jake. Later Dutch Jake and O'Rourke came into full possession of the properties and sold them to Reed for six hundred and fifty thousand dollars.

Kellogg always maintained that they had not been the real finders of this famous mine. According to his story, they had gone on a prospecting trip, and one night at the mouth of Milo Creek their burro had strayed. As Kellogg tells the story:

"The next morning we started out to find him. His tracks was clear and we found wads of his hair where he had climbed over the down-timber and scraped his sides. How the little son-of-a-gun managed to get through that place, I can't tell, but after we got into the canyon his trail was easy. Pretty soon we saw him on the side of the hill with his one good eye slanted across the canyon. He sure was looking hard at something.

"Now you know a jack. They'll stand like a rock till you get almost up to them, and then, just when you put out your hand—easy-like—you get a bunch of gravel in the eye or a kick in the belly. Then they go stand somewhere else.

"But this one didn't act like that. He let us come right up to him

and just kept right on standing. Now if there's anything can shake up a ornery cuss like a jack—you bet I'm gonna look too.

"I'll be doggoned if he didn't have his feet planted on an outcrop—and his ears was pointed at another over the gulch!"

The burro became a celebrated character, his fame being perpetuated in the following jingle:

When you talk about the Coeur d'Alene,
And all the wealth untold,
Don't fail to mention Kellogg's Jack,
Who did the wealth unfold.

Whether or not this account is apocryphal I am not prepared to say—I tell the story as 'twas told to me. At least it is a legend of the Coeur d'Alene.

At the time we took over the Bunker Hill and Sullivan, the Coeur d'Alene territory was filled with the usual rough crowd that followed the opening up of all new mining districts. On one of my extended visits to the mine, I found there existed a good deal of prejudice against the company, while feeling was particularly unfriendly towards its officers. My headquarters were at the mine about a mile up the canyon from Wardner, and since I was much occupied in underground development, my visits to the town were rare; in fact, I went there only on matters of business.

Some of the company's enemies began to spread the report that I was afraid to come into the town. Unwilling to let this pass, I sent word that I would appear on a certain day, and at a certain hour I would walk the full length of the street, down one side and up the other. If anyone desired to attack me, he would then have his chance. No attack was made; I had called their bluff. I did not do this in a spirit of bravado, but because I realized that evidence of personal cowardice was prejudicial not only to the interests one represented, but to one's own safety as well.

In addition to our legal difficulties, we soon had a labor war on our hands in the Coeur d'Alene. The labor union of Montana had been giving trouble to the mine owners in the section around Butte. In order to relieve the tension in their immediate neighborhood, the

exasperated mine operators had diverted the attention of the agitators to the Coeur d'Alene district. Thus, in 1891, Moyer, Harry Orchard and Mozer, and later Bill Haywood, arrived from Butte in the endeavor to unionize the Coeur d'Alene mines.

There was not the slightest discontent among the miners at the Bunker Hill and Sullivan. Shortly after the union organizers' arrival, a delegation of our miners called on me to ask whether the company would insist on their joining the union; they were satisfied with things as they were and had no desire to pay the required fee.

Their particular objection was to being treated by a certain ignorant and incompetent union doctor. I replied that it was a matter of entire indifference to us whether they joined the union or not, but that under no circumstances would our mine become a closed shop.

The company at this time was preparing to extend operations. We had a new mill and we needed more men to operate it. We had ascertained that there were no objections on the part of those already working at the mill or in the mines to our bringing in additional outside labor. Although labor was scarce in the Idaho section, there were many miners out of employment in California. I went to San Francisco, where the company's main office was located, and advertised for the necessary complement of miners to join the Bunker Hill and Sullivan. Large numbers of miners appeared in answer to the advertisement.

Meanwhile serious trouble was brewing throughout the Coeur d'Alene district and this fact was widely reported in the California papers. A great majority of the newly hired miners, even after having expressed their satisfaction with the terms of employment, refused to go to Idaho lest they become embroiled in these labor disputes. Nevertheless, I succeeded in collecting a carload of first-class miners who stated that as American citizens they did not propose to be denied their right to work for any company which offered them satisfactory terms. I explained fully the situation in the Coeur d'Alene and a few days afterwards I left with them in a private car. My wife insisted on accompanying me; and although I had hoped to induce her to stop off at Portland, she would not do so. Newspaper accounts of trouble in the Coeur d'Alene were most alarming and, if I was to be near danger, she insisted on being with me.

Before we started, I sent a telegram to our manager, Clement. Since I was well aware that wires were being tapped by the agitators, this message was designed to act as a blind; Clement had already received other instructions and knew what to expect. My fake telegram informed him that I was taking the miners through to Spokane and would reach Wardner the next day by the regular train.

The main line of the railroad went on to Spokane, but at Tekoa Junction there was a spur running to Wardner and then on up the Coeur d'Alene Valley to Wallace, and other stations in the mining district. The headquarters of the agitators were at Wallace, about twelve miles beyond Wardner which was my real objective.

I made private arrangements with the railroad to have an engine ready at Tekoa Junction so that our special car might be hauled direct to the mine via the spur line. They were, of course, glad to co-operate with us on their own account because they were anxious to have mining operations resumed.

My message to Clement was duly intercepted by the strikers, as I had hoped and believed it would be. When our car reached Tekoa Junction there were at hand apparently only a few spies who had been sent by the agitators to keep in touch with the progress of our train. Our car was hastily switched and I took charge of the special. Meanwhile, one of the spies rushed to the telegraph operator, scribbling frantically:

HAMMOND AND HIS SCABS HAVE STARTED FOR WARDNER.

As I mounted to the cab, the engineer said: "I suppose you're Mr. Hammond. Shall I pull her wide open?"

"We've got to beat the union miners from Wallace. Let her go!" I replied.

There were forty miles between us and our destination, while the men from Wallace had only twelve to go. We raced at hair-raising speed around the tortuous curves of the Coeur d'Alene River. On the bridges we had to take our chances as there was always the possibility that our plot to divert the agitators had miscarried and they had had time to blow them up. Mile after mile of track was reeled off; bridge after bridge was safely crossed on our way to Wardner. But, instead of pulling into the Wardner station, we stopped the

train about a mile short, unloaded the men, and started them on a run for the mill, a few hundred yards distant.

When I turned to help my wife descend, I found that she had been clutching the seat with such a vise-like grip, to keep from being thrown, that her muscles had stiffened. It was with difficulty that I got her safely to the ground.

It was indeed fortunate that we did not go on into Wardner. As soon as the union miners at Wallace received the wire from Tekoa Junction, they tried to intercept us. Unable to procure an engine on such short notice, they jumped on flat cars and coasted down the long grade. About a hundred of them were at the station awaiting the arrival of our train. Nevertheless, before they discovered what we were doing, we had all our miners behind breastworks at the mill, and, since the strikers knew we had already smuggled in guns and were well armed, they committed no overt act. No strike was declared at the Bunker Hill and Sullivan; not a man walked out. The responsibility for the trouble in the district lay solely on the shoulders of the union agitators from Butte.

I remained in Wardner until everything was apparently quiet, and then went to Nevada on professional work. During my absence there was a general uprising, culminating on July 11, 1892, with the dynamiting of the Frisco mill by union men. After a number of murders had been committed, martial law was declared, and federal troops called in. To protect ourselves as well as we could during these disturbances, the Mine Owners' Association hired detectives whose job it was to find out the plans of the agitators.

In my experience, the most interesting, resourceful, and courageous of these Pinkerton detectives was Charles A. Siringo who worked for us throughout the semiwarfare in the Coeur d'Alene, 1891-92. In his youth he had been cowboy and scout in Texas, Kansas, Indian Territory, and New Mexico. When he came into our employ he was a dark, slender, wiry fellow with a small mustache, easily identifiable by pockmarks. Some of the services performed by Siringo, and some of the personal hazards he coolly met during this trouble, are set down in his own notes and the records of the Mine Owners' Association.

On arriving in the district, he secured a job in a mine at Gem where

he worked for four weeks. At the end of his second week he joined the union, and two months later was elected its recording secretary. Meanwhile, he purposely had himself discharged from the mine on a genuine charge of dereliction of duty. As a result, he could devote all his attention to the union miners, ostensibly supported by his position as recording secretary. His reports of union plottings he sent secretly by mail to the Mine Owners' Association. The postmaster at Gem being a rabid union man of the anarchistic type, the detective used to walk four miles to Wallace to post his letters.

Siringo secretly bought a small building in which he established a widow and her daughter to run a store and rooming house. In this way he could appear to the town as a mere lodger while using the building as a vantage point. He witnessed and reported many murderous beatings of our miners who had strayed from our fortified properties into the town seeking pleasure. The house stood on stilts two or three feet off the ground, level with the board walk which was raised above the road to avoid dust and mud. Siringo sawed a hole in the floor of his bedroom through which to escape if necessary. Directly under his window ran the river.

Siringo had been a union sympathizer before coming in contact with the cutthroat Coeur d'Alene crew, but he was now thoroughly out of sympathy with their views, as evidenced by his letters which described the leaders of the union as a vicious, heartless gang, many of them "rocked in the cradle of anarchy at Butte"; many were escaped outlaws from other states.

Siringo steadily relayed to us plots for beating up and killing scab miners whenever they should be brought in from other places for resumption of operations. He reported in advance the plans made for a "bloody revolution" on the Fourth of July, when, as a matter of fact, the American flag was riddled with bullets, trampled, and spat upon.

He cut from the minutes one page of particular interest to me. It not only recorded the union's decision to have its members creep up in the night on two of the mines and flood them by pulling the pumps, but also on this same page was written the decision of the unionists to "do away with" Clement and me. This page Siringo mailed to our lawyers.

While it was being extracted, he had been careful to have two union members handling the book at almost the same time, so as to be sure of witnesses to his innocence if the theft was discovered. The book had then been put in a safe place to which he had not since had access. Such was the accuracy of our foreknowledge of their plans that the unions finally began to suspect the presence of a spy at their councils. It was intimated to Siringo that he had been "making too many trips to Wallace to mail letters." At a secret meeting, held at night, the book was exhibited with the page missing. Pandemonium followed. Although Siringo had his forty-five in a holster under his left arm, he did not think it would be possible to escape from the hall with his life.

That the detective was ordinarily devoid of personal fear is proved by many accounts of his bravery in books dealing with that period and place and his many other thrilling experiences, but he admitted to me that he was badly frightened at this meeting. His fear was not so much for himself, he said, but because of the suspicion he had cast on the two innocent men who were with him when the page was taken out.

At the height of the excitement the president locked the door and, raising his hand, demanded silence.

"Someone has been betraying union secrets! Only three men had access to the minutes-book. These three men are all in this room at this very moment. One of them must be guilty. I propose that we determine which one it is and punish him as he deserves, here and now!" This meant death. Siringo had not only to extricate himself from his perilous position, but also to remove suspicion from the two innocent men whose lives he had jeopardized.

He rose to speak. First of all, he qualified some of his previous statements reflecting on the loyalty of these men by admitting he might have been mistaken. He said it was too serious a matter for him to implicate them without being absolutely positive of their guilt. By means of amazing nerve and a complicated fabric of lies, Siringo finally succeeded in getting the meeting to disperse without taking action.

Knowing it would be not only futile, but also certainly fatal for him to attend further meetings of the union, he remained away

from the next one, where, as secretary, he was due at eight in the evening. When at eight-thirty a union committee came to his room to ask why he was late, he told them to go back and he would be there in ten minutes. They went away muttering. Siringo at once wrote a letter, full of indignation, which explained he had been tipped off that the union had foolishly concluded he was a detective spy. In view of this unjust suspicion he felt he must resign both his secretaryship and his membership in the union. This letter he sent to the hall.

During the dance which followed the adjournment of the meeting, Siringo scouted around outside union headquarters, and learned from miners who had not yet heard of his resignation that a violent demonstration against mine owners and strikebreakers was scheduled to occur within a few days.

On the morning the Frisco mill was blown up, in which a number of men were killed, shooting began simultaneously in the town. Siringo was spotted on the street. Realizing the game was up, and followed by the maddened crowd, he fled for the near-by shelter of his house. Then, to divert pursuit, he threw a large, previously prepared parcel into the Coeur d'Alene River. This achieved its object; the strikers thought he had jumped from the window. During this momentary respite, he coolly moved a trunk which had been placed over the hole in the floor, lowered himself into the space beneath the building, and from there crept under the wooden sidewalk.

As he crawled along he identified a number of the men responsible for the shooting and dynamiting, partly by their voices and partly by glancing upward through the wide cracks between the boards. Watch in hand to note the exact time, he jotted down this evidence in his notebook for later use at their trial.

United States troops, delayed by the blowing up of train bridges by the union agitators, finally arrived on the scene. Siringo distinguished himself further by discovering the cellar where most of the strike leaders were hiding and informing General Carlin. These and others arrested during succeeding days were crowded into the celebrated bull pen.

Just before the trial of the union agitators, I had some matters to discuss with Siringo, who was hidden in the mountains not far from

Wallace. I endeavored to induce him to leave the country and not return until time for the trial, telling him he was too valuable a witness to take any chances. Indignantly repudiating my suggestion, he said "no damned foreigners," such as composed the leadership of the union, could scare him, an American, out of the country. Although he concealed himself in the mountains during the night, he appeared frequently in the mining town in the daytime.

On the occasion to which I have just referred, he insisted on accompanying me back to the railway station, which required traversing the length of the town's only thoroughfare. We walked together down the middle of the road, each of us carrying two pistols in our side coat pockets. There was a running fire of comment from miners on the sidewalk as they expressed their hatred for Siringo in no uncertain language. As he walked Siringo kept his hands in his pockets. The outline of his guns could clearly be seen as he swayed ominously from side to side.

Every man knew that the guns were cocked, and our fingers were on the triggers. Although from time to time he challenged them with the term "coward," a fighting word in the West, no one dared take the offensive. It is easier to talk than to be the first man to die.

In spite of the threats against his life should he take the witness stand, Siringo boldly testified in the federal court at Coeur d'Alene against the strike leaders. We had not only the page from the union minutes-book proving their sabotage plans, but also his identifying information gleaned from under the sidewalk. As a direct result, several of the strike leaders were convicted and sent to the penitentiary. Siringo concluded his final report to the Mine Owners' Association with the words: "Such damnable outrages as have gone on here could not happen in any country but my own."

Some years later, after my return from Africa, Siringo came again into my employ. With David H. Moffat, president of one of the banks in Denver, and Harry Payne Whitney, with whom I was associated in many other mining enterprises, I was interested in buying a mining property not far from Leadville. We were anxious to ascertain whether the samples from a bore hole that we had put down on the property had been salted. As the assays were suspiciously high, Moffat got into communication with the Pinkerton Detective

Agency and my old friend Siringo was sent to take charge of the investigation.

This time he appeared in the role of a man from the Middle West—"not in very good health"—who was a victim of asthma. It took him only a few weeks' sojourn in the mining community where the property was located to establish most cordial and intimate relations with the people suspected of attempting fraud. In this case as before, the reports we received from Siringo showed his remarkable knowledge of human nature, as well as an extraordinary ability to adapt his character to any situation.

After fighting in many other strikes, and performing detective work in various western cities, Siringo settled down in Hollywood where he wrote several books, the most prominent of which are *History of "Billy the Kid"* and *A Cowboy Detective*.

One of the problems connected with the operation of the Bunker Hill and Sullivan was the smelting of lead concentrates produced at the mine. As president of the company, after tentatively securing attractive railroad rates for hauling the ore to San Francisco, I was endeavoring to purchase the Selby Smelting Company's near-by plant. Negotiations were proceeding satisfactorily when I was called away on a mine examination trip to Mexico.

On my return, I learned that a Freiberg collegemate, Alfred von der Ropp, had happened to visit the Selby plant on his way to Australia, where he was to take charge of large smelting operations under the management of another Freiberg man, Herman Schlapp. Ropp's visit to the Selby plant convinced him that the metallurgical operations in effect there were not scientific. He convinced the directors that he could make money for the company, which at that time was in the red. This resulted in his giving up his engagement in Australia and taking charge of the Selby Smelting Company.

It is extraordinary how seemingly unimportant events may exercise a vital influence on one's career. Had I purchased the Selby plant, my responsibility to the capital necessarily invested therein, and the vastly increased burden of operating the joint properties, would have so involved me that I should not have been able to go to South Africa and consequently my whole career would have been changed—for the better, quién sabe?

CHAPTER TWELVE

The Call to Africa

THE LAND OF ADVENTURE — MAGIC BLUE CLAY — BARNEY BARNATO AND THE DEPRESSION SEND ME TO AFRICA — I TIE UP WITH BARNEY — ROMANTIC STORY OF BARNATO'S RISE — COSMOPOLITAN JOHANNESBURG — NATIVE SERVANTS — WASTED ADVICE — BARNATO'S WHITE ELEPHANT — I RESIGN — A THOUSAND MILES TO MEET RHODES — I BECOME CONSULTING ENGINEER OF THE CONSOLIDATED GOLD FIELDS OF SOUTH AFRICA AND THE BRITISH SOUTH AFRICA (CHARTERED) COMPANY — BARNEY'S TRAGIC DEATH

*A*s a boy, I always thought of Africa as the land of mystery. My mind conjured up endless deserts and snow-capped mountains and impenetrable jungles. I knew there were cataracts that dwarfed Niagara. In the zoo I saw elephants, lions, camels, and other strange animals of the Dark Continent.

As I grew older, I read books and talked with travelers about Africa. Those few who had been to its diamond mines had stories to tell of the strange negro tribes with their still stranger customs. Rumors of the great ruins at Zimbabwe came to my ears.

Even after I went into business, I found it impossible to avoid being influenced by these early impressions. Yet I knew that Africa, for the mining engineer and the entrepreneur, offered unlimited opportunities for wealth, however proportionate the risk might be.

In Africa the world's natural resources were still to be found in profusion. To me, already practical and experienced in the world, Africa remained the land of adventure. Diamonds, copper, coal, rubber, ivory, palm oil, and spices—all were there for the taking. For hundreds of years these remained unexploited. Out of Africa came only ivory, slaves, and a small amount of gold.

Then suddenly a new vista of wealth opened. A Boer child brought to her home, near what is now Kimberley, some pretty stones to play with. A chance traveler suspected that they were diamonds. When further search proved the existence of these precious stones on a colossal scale, there was a rush to the diamond fields. Kimberley, almost overnight, became the mecca for adventurous prospectors.

The greatest of all diamond fields are still those in the neighborhood of Kimberley, and even there the average yield in the profitable mines is only about a grain and a half per ton. The stones are found in the necks of extinct volcanoes, called pipes, which have eroded down to the general level of the country. After the indurated mud of bluish color has been excavated from the shafts and hoisted to the surface, sometimes from a depth of several thousand feet, it is spread out on the "floors" and allowed to remain untouched for two or three years, until it oxidizes or disintegrates from exposure to sun and rain.

After the material has been broken up in the mills it is run over inclined tables. Beside these stand the native "boys" deftly picking out the resinous-looking stones as the slow current of water carries them past. The *modus operandi* has now been simplified. Purely through the carelessness of a white overseer, it is said, some greasy material was once spilled on one of the tables. It was found that the diamonds adhered to this substance while the extraneous minerals were washed off, regardless of their specific gravity. This accidental discovery forms the basis of the new process of recovering diamonds.

To avoid all opportunity for peculation, the boys are confined to compounds during the customary three years of employment. At the end of that time they are penned for a few days in narrow quarters where every precaution is taken to thwart their frequent

attempts at smuggling. They will even endure the pain of making deep cuts in their bodies in which to conceal the diamonds, and not infrequently they will swallow the gems. This latter type of smuggling is provided against by the administering of strong and thorough—"searching" aperients before the boys are released.

However arduous diamond mining may be, in the past it has been highly remunerative. It is still an extremely condensed form of wealth. Moreover, it is a geological wonder that the greatest known deposits of gold and diamonds should both occur in Africa within three hundred miles of each other. From the profits of the diamond industry at Kimberley abundant capital was available for the subsequent exploitation of the greatest of the world's gold fields—the Witwatersrand, the White Water Ridge.

Naturally, my interest lay in the huge gold camp worked by its vast black army of Kaffirs digging endlessly underground. During the early nineties, very attractive offers came to me from Barney Barnato and other British financiers who wanted me to go to South Africa to take charge of their mining properties. All these I refused, expressing regret and offering to recommend in my place competent American experts in gold mining. At the time, I was busy with the development of silver and lead mines in the Coeur d'Alene district of Idaho.

After the election of Grover Cleveland in 1892, however, I realized that the tariff policy of the Democratic party would result in a period of industrial depression in the United States. I felt that this would be a good time to go to South Africa for a few months to look over the possibilities of the new gold-mining field then rapidly developing on the Rand. Although I had already answered Barnato's proposals in the negative, he was not satisfied. He renewed his offer opportunely at this time, with an invitation to a conference in London. He not only suggested recompensing me for the time I should lose from my professional work in America by coming to London, but also expressed his belief that he would be able to offer terms so attractive that I should be justified in accepting the managership of his mining interests.

By a coincidence, I received at the same time a cablegram from Scotland asking me to make a report in person to the board of

directors of the Arizona Copper Company, whose property I had recently examined. This request, coupled with Barnato's offer, induced me to go to England, and I cabled Barnato accordingly.

I arrived at Southampton on a Saturday morning in April, 1893, and from there wired Barnato that I should be at his office the following Monday at noon. Although I had heard that he was careless about keeping appointments on time, I found him ready for me on the dot of twelve. It was hard for me to believe that this short, thick-set, little fellow, blond and rosy as a Cupid, was that same Barnato whose reputation for shrewdness had spread throughout the business world. His brother Henry was also present, although he took little part in the conference beyond nodding confirmation to his brother's remarks.

After shaking hands, Barnato inquired politely whether I had had a pleasant trip. Then, going straight to the point, he asked as to my immediate plans. I informed him that I had booked my return passage for the latter part of the week. He expressed the fear that this would not allow us sufficient time in which to settle our affairs. This, in turn, gave me the opportunity to explain at once the foundation upon which any business connection between us would have to be based. Having heard rumors that Barnato was a keen trader, I wanted to make certain that I, as an engineer, would not be involved in any extraprofessional activities. I began by saying, therefore, that if we could not agree on the fundamentals of our relationship in half an hour, there would be no point in continuing the discussion.

"I've been told you've often engineered the market for your stocks," I said. "That's not my kind of engineering. Before we discuss any terms it must be clearly understood that my professional reputation is not to be used for the purpose of rigging the stock market for your mining securities."

Without hesitation came Barnato's reply: "I'm glad to hear you say that, Mr. Hammond. If you'd do whatever I told you to, what use would you be to me? Why, you'd be just as likely to do the same for someone else to my loss if he could make it worth your while."

Then looking at his brother, he continued: "Henry and I have

been talking over this proposition and have decided to offer you twenty-five thousand dollars a year. You know, Mr. Hammond, that's the biggest salary any American engineer gets in South Africa."

Having already determined for myself the minimum for which I should be willing to leave my established American practice, I at once said: "I'm sorry, Mr. Barnato, but I'm not interested at that figure. I've been doing much better than that at home."

"How much *do* you want then?" came his question.

"Double it," I said.

He looked inquiringly at Henry, who nodded approval. Barnato then agreed. "All right, that's satisfactory to us."

But, since I desired to leave no loophole for misunderstanding, I continued: "Inasmuch as you are to spend many millions of dollars in the development of your properties, and, believing as I do, that I can increase the operating efficiency of your mines and introduce economies that will amount yearly to many times my salary, I shall accept your offer of fifty thousand *only* until such time as I have been able to convince you, as a good businessman, that my services are worth a great deal more to you. Therefore," I concluded, "when that time comes you must be prepared to expect from me a request for a much higher salary."

"All right," he agreed. "If you can do what you claim, you'll be earning it. All the other engineers have a three years' contract. I suppose you'll want the same?"

"No," I replied, "you'll be able to determine in six months just how valuable my services are to you. If I should enter into an agreement for a longer period, and then fall out of favor with you, you could make it so uncomfortable for me that out of self-respect I should have to tender my resignation and you would consequently be relieved of your contract. On the other hand, if I were tied up for three years with you, I should not be permitted to resign even if the position became distasteful to me. In other words, Mr. Barnato, I should regard such a contract as one-sided and to my disadvantage."

Rather to my surprise, Barnato accepted all my terms, and the agreement was drawn up and signed the following day.

The next day I spent in Edinburgh and presented my report to the directors of the Arizona Copper Company. While at their mine in Arizona, I had assumed the responsibility of discharging the manager of the property whom I found incompetent and more than wasteful of the company's funds. I had temporarily installed James Colquhoun, their chief chemist.

The directors approved my report of the changes I had suggested for the development of the mines and the treatment of the ores, but when it came to adopting my recommendation that Colquhoun be made permanent manager they demurred, saying they doubted whether he had the ability for such a position. I reassured them as to this. Then the question of salary came up. They said they had known him for many years and he had never been the recipient of such a large salary as was paid to the manager of their mines. I told them that was really a small matter, and I sympathized with Colquhoun in that they had evidently undervalued his services in the past and had not given him the compensation to which he was entitled.

The subsequent history of the great success of the Arizona Copper Company under Colquhoun's able management justified my recommendation; he remained there many years, until the property was sold by the Arizona company to the well-known firm of Phelps-Dodge. Thirty years later I had the pleasure of renewing my acquaintance with Colquhoun, at Del Monte, California. In the meantime, as manager of large copper interests in Russia he had had most thrilling experiences after the Soviets had taken over the country. With great difficulty he finally escaped and went back to England, where he now resides.

By the end of the week I had completed my business with the Arizona Copper Company and with Barnato. I returned at once to the United States to settle up my affairs before taking my family to South Africa. Barnato, meanwhile, went to Cape Town.

It was due to the Brothers Struben that the Johannesburg gold fields developed so rapidly, although gold was first discovered there by a man named Arnold in 1885. In 1886 Johannesburg began rapidly to grow through the activity of the new discovery.

Whether one regarded him with admiration or distaste, Barney



TABLE MOUNTAIN, CAPE TOWN



BARNEY BARNATO (1852-1897)

Barnato was an extraordinary character. He was born in London in 1852, the son of a Jewish shopkeeper in Whitechapel. The name "Barney" Barnato, by which he was generally known, was not his own. He had assumed it in place of the original Barnett Isaacs when he set up a small store in Kimberley, the raw new town in the diamond fields.

His parents had been unable to make much headway financially. Barney, however, had inherited not only their tenacity but had in himself tremendous resourcefulness and energy. Although self-educated, he had a brilliant mind and possessed a remarkable appreciation of intellectual achievement in others. As is generally true of his race, he was fond of his family and loyal to his friends.

As a companion he was interesting; as an entertainer, inimitable. Amateur theatricals had been his chief relaxation as a boy in London. He could quote more extensively and accurately from Shakespeare than anyone else I have ever known. Frankly proud of his dramatic talents, he seized every opportunity to display them. To the great advantage of charity, he staged many benefits in Johannesburg, not only engaging the theater and supporting cast but assuming all other expenses. His performance in *The Bells*—that famous play which the great Henry Irving had made his own—was quite untouched by amateur failings.

I was once seated next to Barney at a large stag dinner in London. According to the English custom of hiring a music hall artist to entertain their guests, Marshall P. Wilder, an American, was the one selected for that evening. He was so successful in keeping his audience in gales of laughter that I, who knew Barney well, could see that Wilder's quips had quickened in my friend those inexhaustible springs of anecdotes that were always ready to bubble over.

I wrote hastily on a card "Try Barney" and sent it to our host. At an appropriate moment this suggestion was acted upon. Barney, nothing loath, accepted the invitation and, like a conjurer, began to produce from his prodigious memory such varied examples of humor that the guests sat enthralled. Although at first Wilder was somewhat piqued at losing his audience, he also was caught under the magic spell of Barney's flow of reminiscence and anec-

dote. When the party finally broke up in the small hours of the morning he approached Barney and thanked him with the true artist's ungrudging appreciation for a master of his own craft.

In Barney's frequent voyages back and forth from London to the Cape he was always accompanied by his wife, his children, and two pets. The first of these pets was an English pugdog named Blue Rock, who received as much attention from the friends of the Barnato family as one of the children. The other was a green parrot who possessed a luxurious gilded cage. After his success in the gold fields Barney had initiated the custom of giving occasional breakfasts to friends of his on the stock exchange. The parrot had been taught to greet the guests with, "Barney, what price Primrose today?" Primrose was one of Barney's gold mines, the stock of which was rising perceptibly in price at this time, due perhaps in part to the parrot's advertising.

Barney was a master of financial wizardry in any field. Jacob Schiff and other Jewish banker friends of mine once asked me what I thought of his ability as a financier. I told them that if he were alive today and penniless, I would grubstake him to a few hundred dollars and a push-cart, and that, launched with this small capital, he would soon be taking their money away from them in Wall Street. They did not particularly like this characterization of Barney; nevertheless, I do believe his equal would have been hard to find.

Barney was the sort of man who never let his pride stand in the way of his making "an honest penny." One day, I said, "Barney, I will get some people from the 'Corner House'"—meaning the Eckstein Company, local representatives of Wernher, Beit and Company—"to come over and have a talk with you about a project Eckstein discussed with me today."

Barney inquired, "Do you think there is anything to it?"

"Yes," I replied. "It looks pretty good!"

"Well," said Barney, "I will not waste any time. I will go right over and see him. I'm a busy man, but I have always found that if I go to the other fellow's office, I can get away better. I will not be detained too long, and if things are not going as I want

them to, but are against me, I can always *say* that I have an important engagement and leave."

Barnato bought his first claim in the Kimberley diamond fields in 1876 with money saved from his shop. Only five years later he floated his first company. From the hundreds of small claims then operating in the pits came a flood of jewels that was disrupting the diamond market. Barnato was one of the first to see that the great opportunities for profits lay in amalgamating the smaller companies into larger organizations, which could then control output and keep supply commensurate with demand. In a few years the diamond companies were mainly aligned in two groups: the De Beers with Barnato at its head, and the Kimberley controlled by Cecil Rhodes. Finally, in 1888, the two competing groups were joined into the great De Beers Consolidated Mines, Ltd., which still controls the major part of the world's diamond output.

In the autumn of 1893 my family—consisting of myself and wife, my sister Betty, and my two sons Harris and Jack—came to Africa. Still distinct in my mind is the memory of that first view of Table Mountain as it stood out clear and stark in the golden sunrise. Often since then I have seen it covered by clouds as by a tablecloth. From the deck of the steamer *Scot*, Cape Town seemed a part of the white surf breaking on the shore.

"Mr. Barnato came down to meet us in high good spirits, and from my cabin," wrote my wife in describing our arrival, "where I was searching for small boys' caps and coats, I could overhear his hearty welcome, and his breezy excuses for not being conventionally dressed to meet us.

"'I had time only to put on my ulster over my pajamas, I was so anxious to be down at the wharf in time to receive you,' he said, 'but I don't suppose Mrs. Hammond will mind.' The heart of 'Mrs. Hammond' in the cabin dropped at these significant words; and it seemed to her that crossing the equator had subverted other laws than those of climate."

After we had passed through the Custom House, Barnato himself took one of my handbags and we mounted into a waiting Cape cart. In this peculiar high-wheeled contrivance we drove to the Queens Hotel in near-by Sea Point where a suite had been reserved

for us through Barnato's forethought. The peak of the morning's excitement for the children was Barnato's parrot which he had brought along to entertain them.

There was some difference of opinion between the landlady and my wife as to which rooms were more suitable for the children. The landlady thought it a great mistake for the children to have the best rooms in the suite. Indeed, she objected to their being with us at all. My wife explained that it was now too late for us to rid ourselves of these encumbrances, but that we should guarantee good behavior on their part. I admit, we were assuming considerable liability.

There was further difficulty when I asked for a bedroom fire for Jack, who was not well. I was told that the chimney smoked and a fire was out of the question, and in any case it was better for the boy to get up and exercise to keep warm. "Fires are not considered healthy in South Africa," the landlady volunteered. In spite of these minor differences of opinion, there was about the place a fraternal spirit to which we quickly accustomed ourselves.

As there was little to amuse the children at Sea Point, Barnato kindly took them to his office where they could be entertained by looking at his great collection of diamonds. When he brought the boys back, full of excitement over the shining playthings, Barnato told us how chance had just played him a scurvy trick. It was customary for the De Beers Diamond Company once a year to sell the entire annual output of the mines to the highest bidder based on the price per carat, irrespective of the size of the diamonds. Barnato had held the contract which had just expired. Within an hour after the new syndicate had assumed control a lucky blast had uncovered a pocket which contained many diamonds of large size. This was hard luck for Barnato, as the value of the find ran into several hundred thousand dollars. When these diamonds were retailed, the price per carat mounted greatly with the increased weight of the stone.

I did not stay in Cape Town any longer than was necessary, but started almost immediately on the thousand-mile rail journey north to Johannesburg. The city was located on the high veldt which stretched far and wide in every direction. The houses were in no

way pretentious, being merely one-story structures, each with its broad veranda.

Those who had seen something of the western mining camps in the United States, supposed we suffered similar privations in Johannesburg. Though the town was comparatively new, it was not a mining camp in the western sense of the word, but had already attained a cosmopolitan atmosphere. As a matter of fact, living conditions in Johannesburg were quite equal to those in large cities elsewhere in the world. Everything was very expensive, but salaries were high and markets were plentiful.

The population, of course, was extremely heterogeneous. The small percentage of Boers was almost drowned out by the foreign inhabitants, who had built up the city after the gold discovery. The majority of the Uitlanders—as we foreigners were called—were law-abiding substantial citizens by temperament, and most of us were accompanied by our families.

My wife was keenly observant of the social customs of this new environment. She found the elaborate and costly balls rather dull because the husbands always retired to the smoking room to discuss mining problems and local politics. Because of ever-increasing interference from the Boer government at Pretoria, these subjects, truly interrelated as will be shown later, occupied the men for the entire evening. The women devoted this prolonged interval to talking about their own feminine concerns. What little gossip there was had neither malice nor unfriendliness in it.

Although Johannesburg was largely an English community, not much time was devoted to sports; the men were too hard at work all day. An occasional polo match, gymkhana, and now and then a horse race were held at the Wanderers' Club. These social functions were usually made disagreeable by the constant dust from the bleak dry veldt and the "tailing" piles of the mills.

Because the town was so prosperous at this time, servants were hard to procure no matter what inducements might be held out to them. On one occasion my wife advertised for a housemaid and a delicate little woman applied. When asked about her experience, she admitted that she had had none beyond keeping a tearoom in town; she had once been in the asylum, and now that she felt

her mental ills coming on again from overwork, she thought she would like to be in domestic service.

On another occasion we advertised for a coachman. As my wife described it, a dapper-looking individual with curly banged hair and golden mustache applied. Genial and communicative, he said he had never been a private coachman, but was a first-rate driver of oxen. He wanted a position as Mr. Hammond's servant because it would give him a standing among his fellows.

Our native servants were quite different from the Chinese to whom we had been accustomed in California. One of our houseboys was docile, but very forgetful. When reproved for remissness he invariably went to his cabin, arrayed himself in a straw hat and a sweater violently striped red and yellow, and sang *Lead, Kindly Light* with the voice of an angel. Another houseboy was a six-foot Zulu named Jim, who had to be treated as though he were a child of six.

I remember giving a dinner to Baron Ferdinand Rothschild on one occasion when he visited Johannesburg. There was everything in the food line that one could find anywhere else: fruit and vegetables came from Cape Town; we had the choicest wines that the best cellars of Europe could provide.

At this time we had a fine, but expensive, chef whom my wife had hired in Paris and brought to Johannesburg; not with the idea of ostentation, but because she wanted to be sure of my having the proper and most palatable food. This chef had been employed by one of the Rothschilds of Vienna. He was an excellent cook; one of the best. My wife wondered how the Rothschilds could afford to let such a man leave their service. Some weeks later when my wife came to me in dismay over the bills run up by the chef, I said, "Well, maybe the answer is, the Rothschilds couldn't afford to keep him."

Some time later, I planned to give a dinner to Alfred Beit. The afternoon of the dinner, the chef started getting drunk, and wound up by chasing one of the maids around the house with a butcher's cleaver. It was necessary to overpower him and lock him up. The dinner had to be called off at the eleventh hour. When the man sobered up I gave him a good scolding, but tolerated him for a

while longer. Then he began drinking again, and finally it was necessary for me to give him a good thrashing and discharge him. He immediately started in business for himself, as a caterer, and made twice as much money as he had been receiving. I discovered that he had deliberately got drunk so that I would fire him and he could open his own business. I sometimes found it embarrassing when dining with friends, to discover that the food was supplied by the caterer whom I had discharged as my chef.

A man's wife—and this applies particularly to the engineering profession—can exert an unusual or peculiar influence on his success. A woman of this kind, who has sympathy and understanding, can do much to ensure the co-operation of her husband's staff. My wife learned first aid when she was a young woman, and many times she applied that knowledge and afforded great relief to the suffering when physicians were not available.

In Johannesburg our Sunday luncheons were given up to entertaining young engineers, or engineers away from their homes and families, to give them a share in a domestic atmosphere. This had naturally, though it was not intended for that purpose, a great moral influence.

My wife always believed that men ought not to talk shop away from shop, and for that reason she established a rule of fining anyone who attempted to discuss technical mining matters. If "pump," "gear," "shaft," or any other such term was used at our home, she would fine the person using it, the money to be given to charity. Because it was difficult at first to teach the men not to refer to the subject of mining, she collected quite a sum.

Immediately on my arrival in Johannesburg, I looked up my old friend, and classmate at Freiberg, Edgar Rathbone. (He was the father of Basil Rathbone, the well-known English actor.) Rathbone had been employed for a year or more as mining reporter on one of the Johannesburg papers. He had an intimate knowledge of the relations of the mining groups, of which there were several strongly competing ones on the Rand.

I spent the greater part of two or three days quietly apart with

210 The Autobiography of John Hays Hammond

Rathbone, and from him I got a good knowledge of the dramatis personae of the mining industry. This information was of great value to me, and undoubtedly prevented my making mistakes in my dealings with these men. Otherwise, I would have required several months of actual experience to find my way about in my business dealings with the various groups engaged in mining.

Rathbone was most eager to be of help to me, not only because of our friendship during Freiberg days in '76-'79, but because I had been able to render him an important service.

Before I left the United States I received a cablegram from Rathbone, saying that his firm in England was very much embarrassed. It had agreed to send an engineer to examine a mining property in Nevada, but unforeseen circumstances made it impossible for an engineer from London to make the examination before the expiration of the option held on the property by their clients.

At no little inconvenience, and with a good deal of hardship to reach the mine in winter, I made the examination for Rathbone's firm and sent a cable report on the property. This relieved his firm of the financial liability which would have been imposed in default of the report they had agreed to make. Rathbone was naturally grateful for my help in this matter.

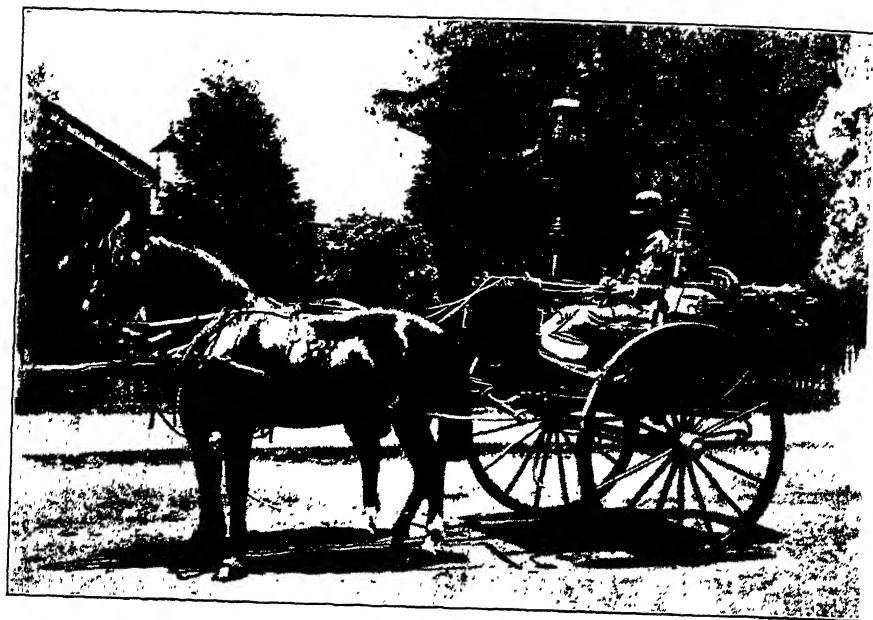
Ernest Wiltsee had preceded me to the Transvaal and had written glowing accounts of its future. Victor Clement accompanied me to South Africa, while shortly afterwards Pope Yeatman, George Starr, E. M. Garthwaite, Hal Tilghman, Robert Catlin, and S. B. Connor were included in my staff of American engineers. I soon added several brilliant young English geologists: S. J. Truscott, now professor of mining at the Imperial College of Science and Technology in London, Dr. F. H. Hatch, and J. A. Chalmers. This was an exceptionally able staff whose services contributed greatly to the successful development of the mining properties of Barnato, and subsequently of Rhodes.

Part of my arrangement with Barnato was that I should be free to accept other engagements as a consulting engineer so long as they did not conflict with his interests. This had always been my custom.

Soon after my arrival in Africa, I was employed on the recom-



THE MARKET PLACE, JOHANNESBURG



DR. MURRAY AND JACKIE IN MY CAPE CART

mendation of Eugene de Crano to examine for some of his English clients a mining property near Johannesburg in which a great deal of money was involved. My examination did not take long as it was a type of geological formation with which I was familiar. In due time I sent in the bill for my services.

De Crano wrote me in a friendly but frank tone that his clients were rather surprised at the amount of my bill. They had previously consulted another engineer on the Rand who would have made the examination in question for much less money, "if he had known that type of mining."

I replied that I did not consider the fee excessive. I said the arguments of his clients reminded me of the sea captain who was in a great hurry to get his clearance papers at a port in Maine. By employing the lawyer most familiar with the necessary procedure he obtained them without delay.

On the way to his boat the captain met one of his friends who said, "Well, Cap, you're getting out quick."

"Sure thing," replied the captain, with a smirk of satisfaction.
"How much did it cost you?"

"Twenty-five dollars," admitted the captain.

"Gosh Almighty! Why, ole lawyer Smith would of done it for five dollars—if he'd a-known how."

De Crano saw the point.

My first task in Johannesburg was to inspect Barnato's mining properties and to advise him about them. I soon called his attention to the East Rand gold-mining section, at that time undeveloped, and urged him to acquire an interest there. But Barney was occupied with other matters, principally social, and did not adopt my recommendation. He spent too much time listening to stock-brokers who were trying to interest him in various speculative schemes. Barney was always a speculator at heart; he employed his tremendous courage on the long chance rather than on the sure thing. This does not mean, however, that he had vision or foresight as to future developments in mining.

This was well brought out by his reaction when I urged upon him the possibilities in deep-level mining; that is, the working of ore bodies at several thousand feet below the mining operations at

that time. Although surface claims above the deep-level areas had not been taken up and could have been obtained cheaply, yet since the majority of mining experts still thought such a scheme chimerical, Barney would not listen to me.

Naturally I was much disappointed that my recommendations on these two important propositions had been ignored. The first project, the development of the East Rand, was subsequently taken up by others and proved enormously remunerative. Hundreds of millions of dollars were extracted from the very properties I had once recommended to Barnato. The second scheme, the opening of the deep levels, will be referred to later.

Barnato's repeated failure to act on my recommendations decided me to resign at the end of six months' engagement. He also made things difficult for me by failing to keep appointment after appointment which I made for him with the owners of valuable mining claims. When I suggested leaving his employ, Barney seemed both surprised and disappointed. He asked me to wait until he should arrive at Madeira, en route to London whither he was sailing within a few days. He advanced as his reason for the delay that he would have no opportunity before he departed to discuss with Woolf Joel, his nephew and business associate, the renewal of my engagement on the basis of my contract, but that on the steamer between Cape Town and Madeira he would take up the matter with Joel and would cable me from there a proposition to renew my services. I replied that unless I could accept his proposal without further negotiations, *ipso facto* my engagement with him would terminate.

I saw in the newspaper that Barney's ship had arrived at Madeira, but the promised cable did not materialize. As soon as I knew the steamer must have left for London, I presented my resignation to Solly Joel, the nephew in charge of Barnato's Johannesburg office. He endeavored to prevail upon me to wait until I heard from Barney on his arrival in London, but this I declined to do. I told him that it was not a question of compensation alone; that my coming to South Africa had been heralded as the arrival of "Barnato's White Elephant," and that I felt it was doing myself an injustice to let pass opportunities of making a professional reputation, because of

Barnato's failure to avail himself of the counsel I had given him. Accordingly, I insisted on definitely resigning.

Although I had given him timely notice, Barney was taken aback by my leaving his company. We always remained good friends, however, and for some time after joining Rhodes I continued to manage Barnato's mines.

The news of my resignation spread rapidly. Almost immediately came a telegram from Cecil Rhodes, who had recently been made prime minister of Cape Colony, asking me to come to see him at Cape Town. I had already met Rhodes on a train, having been introduced to him by Robert Williams. He knew that I was then under contract with the Barnatos for a fixed period and had not approached me during that time. I had already received offers from several powerful syndicates contingent upon leaving Barnato. They had even proposed to finance independent companies in which I was to have an interest. None of these offers, however, proved sufficient inducement. Rhodes was the big man of Africa, and it was with him that I preferred to become identified, and I lost no time in accepting his invitation and starting for Groote Schuur, his famous residence not far from Cape Town.

Early on a beautiful South African spring morning in 1894, Rhodes and I retired to a stone bench a few hundred yards from the house, on a little path leading up to Table Mountain. From this point our glances ranged over the glorious harbor.

As we sat there I studied Rhodes. He presented a striking figure, typically Augustan, I thought, with his heavy forehead, his strong mouth, and square cleft chin. This impression of his origin was strengthened by the curly blond hair, always in confusion. His gray-blue eyes could be cold as ice, but when he smiled, as he frequently did, they were no longer cold. Although slender when young, as he grew older his big-boned frame filled out until he seemed to tower rocklike over most of his companions. His hands were blunt and powerful, expressive of himself. He rarely moved them to gesticulate.

Rhodes came to the point quickly. "Mr. Hammond," he begun, "I take it you are not in South Africa for your health?"

"No, Mr. Rhodes," I replied; "with due appreciation for the climate of South Africa, I prefer that of California."

"Well," he continued, "how would the idea appeal to you of taking charge of all my mining interests on the Rand?" And he added, "Name your own salary!"

"Seventy-five thousand dollars a year and a participation in the profits would suit me."

"All right," he promptly agreed.

"But," I added, "I want to deal directly with you without interference from your local board of directors. Unless this can be arranged, I can't accept."

I told him frankly that I had a very poor opinion of his properties, but I felt that with his backing I could acquire some other mining interests to level up his investments. Rhodes picked up a scrap of paper only a few inches long, and wrote on it:

*Mr. Hammond is authorized to make any purchases
for going ahead, and has full authority, provided he
informs me of it and gets no protest.*

In this brief manner I was made chief consulting engineer of the Consolidated Gold Fields of South Africa, and soon afterwards of the British South Africa Company (Chartered), which controlled the mining rights of the country then known as Mashonaland and Matabeleland. On the sole strength of this little scrap of paper, I spent many hundred thousand pounds.

There was naturally considerable friction when I took over this position, owing to the jealousy felt by some of the English engineers towards their American colleagues. But Rhodes gave me his unqualified support and agreed to accept any recommendation I should make on one condition: the acquiescence of his brother, Captain Ernest Rhodes, former engineer in the British Army, who was at that time resident managing director of his companies. As I had formed a high opinion of Captain Rhodes and he had expressed confidence in my judgment, I felt sure he would accept my recommendations without hesitation.

Ernest was entirely different from Rhodes in temperament. He was a soldier, fine and high-principled, but he knew little about

mining or finance. Rhodes would say, "If Ernest agrees, and you don't hear to the contrary, go ahead." Ernest always agreed and I never heard to the contrary. We made rapid progress.

Thus fairly early in 1894 I had the Rhodes mines well organized, with the help of my mining staff who had followed me from the Barnatos. I secured additional engineers from America.

Barney chose to consider that Rhodes had played him a mean trick. He went to see Rhodes and, thumping the table angrily, said: "Suppose you had a first-rate chef and after dining with you I hired him away from you. You'd think me a cad, wouldn't you?—and you'd be right, too. But you've done the same sort of thing in getting Hammond away from me."

My explanation here will show that this was wholly unjust.

Later at a banquet given to the leaders of the Reform Committee after their release from Pretoria Gaol, Barney was kind enough to say that he regarded me as the best investment he had ever made and was sorry he had not followed my advice. Although I had not been connected with him for several years prior to his death, I still had a genuine affection for him, for which there was good reason.

Barney Barnato stood bail for me when the Boer government permitted me to go to Cape Town because I was ill of Zambesi dysentery. In fact, he remained in Pretoria for six months, doing everything in his power to help me. On my return from Cape Town to Pretoria to stand trial, Barney vehemently criticized my foolhardiness in coming back.

I said, "Barney, didn't you feel a little worried that I might skip out and you'd have to forfeit \$100,000?"

He replied hotly. "I thought you had more sense than to come back when you might have skipped out altogether. The \$100,000 bail is nothing to me. You and I could make that in London in a few days. Now you're in for God knows how long."

Barnato's end was tragic and lamentable. A few months before his death in 1897 he formed a corporation called the Barnato Bank to take over all his mining interests. On his advice many friends in England purchased shares in this new company. There was every reason to suppose Barney's representations as to the value of the stock would be realized; but unfortunately a financial depression

set in in London and the Barnato Bank stock, with all other South African shares listed on the market, sharply declined.

Barney, who was in Johannesburg at the time, became seriously depressed. The prospect of hurrying to London to meet his disappointed shareholders weighed so heavily on his mind that he threatened to commit suicide. His nephew, Solly, and some of his friends made it their business to keep constant watch over him on the voyage.

So carefully did they guard him that he did not succeed in carrying out his intention until the day before the steamer touched Madeira. While pacing the deck arm in arm with Joel, Barney said, with disarming casualness, "Solly, what time is it?" Solly released his grip for a moment to get out his watch, whereupon Barney rushed to the rail and jumped overboard. It is said that the fourth officer of the *Scot* almost lost his life in a vain attempt to save poor Barnato. When the body was recovered he was dead.

As I happened to be in London when Barnato's body was brought to Southampton, I was able to render some slight service to his family by taking charge of his remains.

The tragic irony of Barney's suicide lay in the fact that it was so unnecessary. Had he lived to reach Madeira, where he would have been in touch with London by cable, he would have learned that the market had taken a turn upward; that the shares he had sold to his friends were actually standing at a premium, and that he would not have had to suffer the ignominy of facing a disappointed group of shareholders; on the contrary, he would have been the recipient of hearty congratulations.

Under the management of Solly Joel the Barnato firm eventually became the greatest financial power in England, surpassing even the Rothschilds.

CHAPTER THIRTEEN

The Empire Builder

RHODES'S EARLY LIFE—THE FIRST DIAMONDS AT KIMBERLEY—OXFORD—THE HIGHEST OBJECT—RHODES'S "NORTH"—HIS LAST WILL—THE AMALGAMATION AT KIMBERLEY—THE RAND CONSOLIDATION—"I DO LIKE POWER"—GENEROSITY—"FOUR THOUSAND YEARS"—GROOTE SCHUUR—PICKERING AND JAMESON—UNCONVENTIONALITY—"SO LITTLE DONE"—MATABELE DEATH CEREMONIAL

Cecil Rhodes has been considered a mysterious figure by many historians. At the time I was with him in South Africa, he was greatly misunderstood by the world at large but never disparaged by those associated with him in the development of South Africa. More is known about him, however, as time goes on, and his true worth becomes less difficult to discern. He looms higher with each succeeding year.

His career was intense and magical, so crowded with action and event that it was impossible for most of his contemporaries to see the man with any clarity of perspective. There were those who argued that he was a proud and greedy hypocrite; there were others who considered him a great humanitarian whose ideals were irreproachable. The South African natives are said to have thought him mad. If so, it was the kind of madness that appealed to them and made them trust and follow him. It is certain that he was

possessed of an energy so inexhaustible that to the ordinary man he must have seemed almost a demon. Coupled with this energy was a driving desire for power—whether for himself first and for his country afterwards, or vice versa, was a question at one time debated by his friends and admirers who knew him, as well as by his political enemies and those who had had no contact with him—but not now. History has settled this in favor of Rhodes's protagonists. Whatever his motives, whatever the complex psychological sides of his character, the effect of his deeds has been indisputably great, as he was the greatest personality I have ever known.

I have known many statesmen, industrialists, and scientists in my life, and have been associated with some of them in politics and business. I have talked with explorers, philosophers, writers, scholars, and military leaders who have achieved distinction, but no one of them stands out so vividly in my memory as typifying greatness as does this man who lies buried in the Matoppo Hills of British South Africa.

I had the good fortune to be intimately associated with Rhodes for seven years. He was my close friend. I was engaged with him in the active management of large mining enterprises. Most important of all, we were coconspirators in a political revolution.

For these reasons I may claim a special knowledge of him. In my estimate of his career and character I do not believe that I am moved by blind hero worship. I have tried to be impartial. In some respects my relations with Rhodes were more detached than were those of others. In the first place, he was not quite two years older than I, and the disparity of age was not sufficient to induce in me reverence for one whom I admired. In our business dealings events had so shaped themselves that I was more necessary to him and he was less indispensable to me. That gave me a sense of independence the importance of which Rhodes fully appreciated. For these reasons, and because of the fact that I am an American and not overcome by the patriotism that inspires Englishmen, I feel better qualified to judge Rhodes than might otherwise have been the case. He had decided faults and irritating ones; but they were

chiefly faults that accompany greatness. The faults of a man among whose heroes was Napoleon Bonaparte.

Cecil John Rhodes was born in the quiet vicarage of Bishop's Stortford, in Hertfordshire, England, on July 5, 1853. He was the fifth son of the Reverend F. W. Rhodes, a well-to-do clergyman of liberal tendencies, who held this living for twenty-seven years. Cecil was educated at the grammar school of Bishop's Stortford with the intention of preparing him for the church. It was only at home, however, that he was addressed by his Christian name. At school and thereafter he was known as Rhodes, and only as Rhodes. His older brothers were called Captain Ernest and Colonel Frank, or Herbert, or whatever their names were, but his patronymic, like that of Caesar, formed his only title.

This boy, whose nickname was "Empire Builder," who thought in continents and eons, had started life with the serious handicap of a frail constitution. At the age of sixteen his health broke down. The English climate was not good for anyone threatened with tuberculosis; hence, in the latter part of 1870, he joined his eldest brother, Herbert, who was cotton-farming in Natal, South Africa. He did not remain long in an agricultural environment; shortly after he arrived, diamonds were discovered at Kimberley and by the end of 1871 Rhodes and his brother were busy digging.

Kimberley in those early days was neither inviting nor healthful. It lacked sanitation and was a fever breeder, yet the out-of-door life and dry air of the interior seemed to benefit young Rhodes.

The illimitable spaces of the veldt invited an expansion of Rhodes's mental horizon far beyond that possible within the circumscribed limits of an English country village. Yet England called him home. Oxford was a part of his tradition, and he could not break with it.

Digging in the diamond pits did not at first bring him riches, but he did succeed in making enough to permit him to matriculate at Oriel College, Oxford, when he was twenty. On account of interruptions through ill health and the necessity of looking after his interests in Kimberley, he was obliged to keep his terms intermittently; and did not receive his degree until December, 1881. Although he did not read with particular diligence at Oxford and

220 The Autobiography of John Hays Hammond

was more than once reprimanded for nonattendance at lectures during his earlier terms, he passed all his examinations. The study of prescribed courses did not interest him; he was no student in the academic sense. The books he liked he absorbed thoroughly. Biography, political economy, Gibbon, and certain of the classics, particularly Marcus Aurelius and Aristotle, he read enthusiastically to the end of his life. Above all, he was a student of his fellow men.

Know then thyself, presume not God to scan;
The proper study of mankind is Man.

He seemed to be following the precept of Phillips Brooks, who said, "No man has come to true greatness who has not felt in some degree that his life belongs to his race, and that what God gives him he gives him for mankind."

Rhodes's long vacations were spent in South Africa where his financial interests were daily increasing in importance.

There were then two important influences acting on his young mind: the first was Oxford, and the encouragement of his ideas that he had obtained there; the second was South Africa.

When he was only nineteen, the year before he entered Oxford, he spent eight months in journeying with his brother Herbert, who was on his way to the Tati gold fields, through the little known regions lying to the north of the Orange and Vaal rivers. He carried with him as his chief equipment his well-worn volumes of Greek and Latin classics. His route lay through Bechuanaland to Mafeking, from there to Pretoria, and through Pilgrim's Rest in the Drakensberg Mountains to the borders of Matabeleland. He returned through the Transvaal to Kimberley, passing at the rate of some fifteen to twenty miles a day through vast spaces of rolling veldt.

This expedition had a profound effect upon him. He became convinced that this country, so full of potentialities yet so sparsely populated, should and could be secured for occupation by Great Britain. This was directly in line with his fondness for Aristotle, whom he had now accepted as a guide and whose precept he followed in seeking the "highest object" on which to exercise the

"highest activity of the soul." During this trip he found that "highest object" to which he proposed to devote his future life—the domination of the world by the British people.

The political theory on which his career was patterned is set forth in the first of his six wills, written on the long vacation at Kimberley when he was only twenty-two. The preamble states his reasons for accepting the aggrandizement of the British Empire as his ultimate aim of practical achievement. It ends with a single bequest—everything of which he might die possessed was to be used to further this great purpose.

Rhodes's plan was to form a secret society whose aim would be to extend British rule throughout the world by perfecting a system of emigration from the British Isles to any and all lands that could be colonized successfully by energy, labor, and enterprise. He specifically enumerated those parts of the world which he considered suitable for this purpose: the whole of Africa, Palestine, the Euphrates Valley, Cyprus and Crete, all of South America, whatever Pacific islands were not already possessed by Great Britain, the Malay Archipelago, the Chinese and Japanese seaboard, and, lastly, the recovery of the United States as an integral part of the British Empire.

He proposed to have these colonies represented in an imperial parliament which would weld them together. The resultant power would "render wars impossible and would promote the best interests of humanity." This, in its initial form, was the grandiose political theory of this amazing young man. Present-day psychiatrists would designate this a Messianic complex. Modified by circumstances, it served as a model throughout his life. Again and again in Rhodes's utterances we find expression of his love of peace and of humanity.

Only a year after he had made this first will, Rhodes and four other young men addressed a long letter to a fellow imperialist, Disraeli, then prime minister of Great Britain, in which they told him how the Empire should be run. Not long before Rhodes died, he said to me, "I have never deviated from the policy I laid down in that letter."

His theory was in many respects practical—in others visionary—

but in his mind it was based on logical premises which led inevitably to one end: the hegemony of the Anglo-Saxon race, which he considered not only the most civilized, but also the most capable of all the races in the world. Long ahead of other Englishmen he recognized that the future greatness of England lay in a federal arrangement with her dominions.

He insisted that British statesmen should be imperial-minded; he had no use for Gladstonian Little Englanders. "What should they know of England who only England know?" says Kipling in *The English Flag*.

He wanted coadjutors who would agree with him that Great Britain should acquire new territories, to serve, on the one hand, as sources of raw materials and, on the other, as markets for the manufactured products of the mother country. This, he felt, was the only way to prevent foreign countries from securing an economic grip on world trade and erecting prohibitive tariff walls against England. Although the men of his time regarded such a change in British colonial policy as revolutionary, his plans disregarded utterly the static influence of time and custom. His conception is now a recognized fact as evidenced by the Ottawa agreement.

It was natural that the practical application of his plan should be confined to Africa. He was passionately convinced that Africa must be kept open for British occupation and commercial exploitation. In this lies the key to his political policy.

Rhodes never made any secret of his aims and ambitions. He loved to get out a big atlas and study it. Perhaps the best known story about him is that in which, sweeping his hand over the map of Africa from the Cape to the Mediterranean, he exclaimed, "I want to see that all British red!" It was in line with this ideal of building an empire for Great Britain that he relentlessly pushed the British boundaries always farther and farther towards his "North."

He also enjoyed speculating as to the future of China and Mexico and other backward countries, trying to look far into the future to envisage their interrelations.

Rhodes was a sincere admirer of America and Americans. Once, in a reflective mood, he remarked to me that "the English-speaking

race, by its virtues of courage and justice, and in spite of much muddling, holds the keys of the world. You Americans and we Britishers both prefer peace to war, and right to wrong. With all our faults, we are the peacemakers."

Then, after a long pause, he burst forth again and exclaimed with great vehemence, "Unless we English-speaking peoples stand together, all that we hold dear and all the ideals we represent will be lost."

On another occasion he roundly denounced George III for the loss of America, and stated that but for the King's stupidity there would now be one great country with two capitals—one in London, the other at Washington. In a lighter vein I pointed out that it might have started with that arrangement of capitals, but that ultimately the American would have absorbed the British. Rhodes never liked to have his dreams taken lightly. He smiled politely but he was not amused.

At another time, after listening attentively to my description of our American system of government, with its separation of authority into executive, legislative, and judicial branches, he repeated what he had said on other occasions:

"Don't you think your triple division of authority, however well knit, too rigid for so vast a country as yours, which contains a population so divergent in racial origin and economic interest? Aren't you unconsciously trying to fit all these individuals into your frame of government? I wonder whether you haven't put your cart before your horse. In my opinion, the government should fit the people: moreover, it should be flexible. What is just for a man in Florida may be rank injustice for a man in Maine. People are not meant to be ground through a machine and made into political sausages, all of equal length and weight. That, it seems to me, is what you Americans are trying to do. You have stubbed your toe on the rock of equality. All men are not equal. Democracy is greater than equality; it should mean justice for all!" Rhodes was eminently an individualist.

He meditated for a moment. As I made no reply, he continued in effect: "Lawmakers are useful; we have to have them; but all the legislators in the world cannot build molds in which the human

spirit or even human actions can be rigidly confined. The church tried that for centuries, and failed; and now it seems as if we were to be circumscribed by legislation which may be as galling as any tyranny of the Dark Ages."

Rhodes's sixth and final will was, in many ways, an admission that his earlier ideals were not to be accomplished in his lifetime. In this last testament the bulk of his vast wealth went to found scholarships at Oxford for students from every important British colony and from every state and territory of the United States. The idea back of this was that young colonists would obtain breadth of view, training in *savoir-faire*, and the realization of the advantage of a united empire. The inclusion of American students was intended to instill in them an affection and a sympathy for the mother country and thus foster the union of English-speaking peoples. Rhodes and Hawksley, solicitor of the Chartered Company, who drew up the will, believed, as Sarah Gertrude Millin says in her biography, *Rhodes*, that "there were still only the original thirteen states in the Union of America." So, having provided for a representative from each state, she says, "there are, accordingly, rather more Rhodes scholars from America than from all the British Dominions put together."

Rhodes drew up a list of qualities and accomplishments on the basis of which these scholars should be chosen. These are as follows: literary and scholastic ability and attainments; qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindness, unselfishness, and fellowship; exhibition during schooldays of moral force of character and of instincts to lead and to take an interest in schoolmates; and fondness of sports.

I have always doubted that Rhodes himself could have qualified for one of his own scholarships. He certainly would have failed under "literary and scholastic attainments," while, if judged by success in manly outdoor sports such as cricket, football, and the like, he would have been immediately eliminated on grounds of ill health. Yet, without ever having been a participant in college sports, he recognized their value.

Rhodes had been turning this scholarship project over in his mind for a long time before he actually put it into definite form.

During a discussion concerning the benefits to be conferred upon the recipients, I ventured to point out that the average American university student was better informed on the subject of British history and traditions than the English undergraduate was on American institutions and customs. "Would it not," I suggested, "be well to provide for sending English students to America as well as American students to England?" My views did not prevail, however, and Rhodes adhered to his original plan.

Rhodes realized that the command of large wealth was requisite to the accomplishment of his great ambition. In the first instance, he had to create an independent fortune for himself. With the power thus obtained he could arrange for the financial assistance of others when needed.

Before the end of his Oxford days, Rhodes was already rising to wealth, and was establishing his position as a practical financier by his part in the gradual amalgamation of the Kimberley diamond mines. This was finally completed March 13, 1888, when, with Barney Barnato and Alfred Beit, he formed the De Beers Consolidated Mines mentioned in the previous chapter. At thirty-three Rhodes was the actual head of one of the largest corporations in the world, which not only produced, but regulated and fixed the prices of practically the entire world's supply of diamonds. Up to this time the cutthroat competition in the diamond markets had been so severe that the price of the stones had actually been below cost of production. The industry was on the verge of financial collapse when the amalgamation went through.

The effects of the combination of the rival diamond interests spread far beyond Kimberley. At that time Cape Colony itself was dependent upon the diamond industry for a considerable part of its revenue, and almost entirely for its maintenance.

When the amalgamation agreement had been drawn up, a certain number of founders' shares were set aside for Rhodes, Barnato, and Beit. Whereas the regular shares in the company were legally entitled to only a fixed return, all the residuum of profits—which far exceeded their expectation—was divided among these three men.

Rhodes next devoted his attention to the organization of an important consolidation of gold mines on the Rand, which he called the Consolidated Gold Fields of South Africa.

The wealth necessary to carry on the development of the territory now known as Rhodesia was obtained at first largely from those associated with him in the diamond fields of Kimberley and the gold mines on the Rand. With this he formed the Chartered Company.

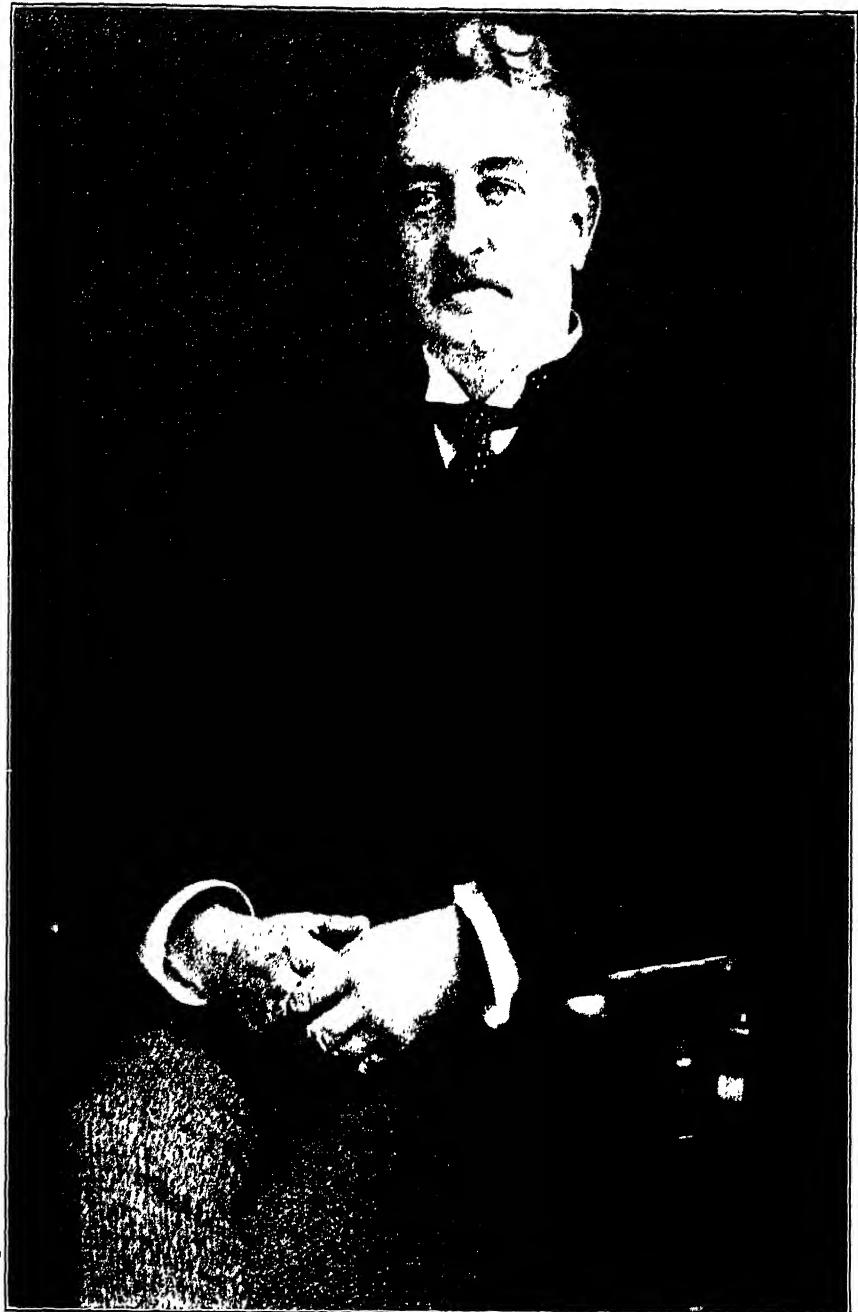
In order to make Rhodesia fit into his scheme, he had to find there, first, gold, and then other minerals. If he could locate this mineral wealth, the railway would naturally follow, and in its wake would come the agricultural population to feed the industrial development. His dreams thus far completed, beyond would lie new and greater territories waiting for the English touch to develop into new colonies.

As I have said, money *per se* did not interest him. "I do like power," he admitted to me more than once. He loved this game of empire building.

Besides the wealth required for the industrial development of his projects, Rhodes was well aware that the command of political influence was essential. Accordingly, as early as 1881, when he was twenty-eight, Rhodes entered the Cape Parliament. Rather than be elected from Kimberley, where his financial interests would have made his political success certain, and have been a pocket borough, he chose to stand for the rural constituency of Barkly West, which, although largely Dutch in composition, remained faithful to him throughout his life. Rhodes never for a moment doubted that he would in time become premier of Cape Colony. This, too, was included in the career he had laid out for himself, and the ambition was realized in July, 1890.

His interest in the betterment of conditions was not confined to Rhodesia but embraced all South Africa as well. He was in a similar way interested in the Dutch farmers of Cape Colony. It gave him peculiar pleasure in being of assistance to the Dutch farmers who were frequent visitors to Groote Schuur.

He would ask an old Dutch farmer what kind of sheep he was raising. After the farmer told him, Rhodes would say "Well, let's get a better breed!" and then went ahead and got them. In this way he imported superior breeds of sheep, goats, donkeys, and other do-



© Brown Bros.

CECIL RHODES (1853-1902)



KIMBERLEY DIAMOND FIELDS

(Letting the clay disintegrate by sunlight before washing for diamonds)

mestic animals which seemed best adapted to rocky kopje or grassy veldt. He used to relate with pleasure that his ancestors, too, had been men of the soil.

His generous gifts in many ways improved the agricultural methods of Cape Colony. On one occasion he asked me about the physical and climatic conditions of California. He then said: "We have good soil and good climate. Quite as good as California from what you tell me, but we don't seem to get proper efficiency out of our horticultural industry." He asked if I knew some experts in that line in California. After inquiry I recommended two brothers. He sent to California for them and started scientific development of horticulture in Cape Colony which has added materially to the success of that industry in South Africa. That is why the Dutch continued to love Rhodes, in spite of the Jameson Raid and President Kruger's personal hatred of him.

Although Rhodes's income in time reached many millions of dollars a year, he spent little on himself. Most of his spare cash he gave away privately and with boundless generosity. His personal bank account was overdrawn most of the time; sometimes he did not have sixpence about him. His securities were often tucked away in pockets of disused coats or in obscure pigeonholes of his desk. When, as a matter of precaution, his secretary hid his checkbook, Rhodes would issue gift checks on half-sheets of note paper or backs of envelopes, sometimes signing them in pencil. They were invariably honored by the banks.

When he had money in his pockets he handled it as though he were a child who did not understand its value. In London, he was often forced to apply to his secretary for money to pay cab fares; when it was given him, it was amusing to see him close his hand clumsily on as much gold or silver as he could hold and drop it uncounted into one of his pockets. When he paid his cabby, he would take out a coin, hand it over, without looking at it, and walk away. More than once it turned out to be a sovereign.

When I came back to the United States after my South African experiences, I was disgusted with our American financiers who repeatedly asked me how much money Rhodes had left in his will. I told them the sum was probably from twenty-five to forty millions

—but in this case that amounted to nothing. He could have made many times that much if he had wanted money for himself. Actually he never knew how much he had.

Biographers have tried to find something in the physical appearance of Rhodes to explain his extraordinary attraction for and power over human beings, black and white. There is really no salient characteristic for them to fix upon. Yet every man who met Rhodes was conscious of being in the presence of greatness. He gave that strange, almost hypnotic impression of a man convinced of the grandeur of his own destiny.

When Rhodes's political career was in effect terminated by the Jameson Raid fiasco, an eminently reputable periodical informed South Africa that the problem of how to treat him was perfectly simple. "Just go ahead and ignore him."

Edmund Garrett, the journalist, replied curtly, "As well ignore Table Mountain."

Many people have tried to apply a general yardstick to human greatness, but with little success. Each genius must be measured according to the nature of his aims and the degree to which he actually achieved them. No Roman emperor ever won more territory than Rhodes brought under his native British flag. When the Chartered Company was incorporated in 1889, he added territory equal to the combined areas of the British Isles, France, Prussia, Austria, and Spain. He made possible the federation of the South African states, and carried halfway to fruition the Cape-to-Cairo Railroad before his untimely death. Few men have accomplished so much; but Rhodes knew that his time was limited. And since there was no son to inherit his ambitions, he was often forced to pound things through by driving the men who had committed themselves to his cause. From these men he expected efficiency, but he never expected perfection. Rhodes was noted as a great compromiser, and in effecting important political and economic negotiations realized that perfection was not attainable. But he had no patience with a stupid subordinate and would be scathing in his denunciation.

I do not believe that Rhodes was the type of man who ordinarily attempted to crush personalities. He often lost his temper, but he was not vicious. I have seen him speak very harshly to some of his

subordinates, particularly in the case of Dr. Rutherford Harris. But I believe it was because of his feeling that there was no time to lose in the accomplishment of his purpose and that he could not afford to be patient in the face of what seemed to him either inefficiency or delay. He most certainly did not suffer fools gladly.

Although in advancing his cause he did not go so far as to adopt the Jesuitical maxim that the end justifies the means, yet he felt that he must be the sole judge of what was good for mankind.

Rhodes had many queer ways and often expressed himself in terms that might be construed as the insanity of egotism. It was not meant so. He was merely viewing himself and his work impersonally as from some Olympian height. In this connection Dr. Jameson told Percy Fitzpatrick the following story, which has often been repeated but is so indicative of his character that it must be included here.

Rhodes's trusted friend, Dr. Leander Starr Jameson, once asked his leader how long he thought he would be remembered. Without pause or smile, Rhodes answered, "I give myself four thousand years."

"It was not a boast," said Jameson. "He would not have said it at all, if I hadn't asked him, and he stated it as a fact—like a fact in history. It did not seem to have any personal bearing."

His impersonal belief in his own star was in marked contrast to his personal simplicity and democracy. He never accepted a title, although he could have had a peerage. I asked him once why he did not allow himself to appear on the honors list. "The only title I should like is an honorary degree from Oxford," he told me. This honor came to him, unsolicited, not long afterwards.

There was no pretense of democracy in his nature; simplicity was an integral part of it. I have often seen him decline invitations to be present with those prominent in society and in business, preferring to chat informally with his own simpler comrades.

He could never tolerate circumlocution in any form. Nor did he have a memory for details; and would quote statistics "in globular figures." He would form a conception and his trusted subordinates would carry it out. There is no doubt that at times Rhodes was dictatorial. This was partly due to the great burdens he carried under the shadow of death, partly to that quality in his nature which re-

fused to let any barrier, great or small, keep him from his goal. His resourcefulness was a matter of constant amazement to his associates.

Enemies of Rhodes have often declared that he was selfish and ruthless. This was emphatically not true; fairness and justice were guiding principles from the observance of which he never intentionally swerved. I heard him say more than once: "Always be sure to satisfy the other fellow. Any trade that is not satisfactory to him is not satisfactory to me." And again, "I have never in my life met anybody with whom it wasn't just as easy to deal as to fight." In fact, Rhodes fought only when he was driven to it.

Long before American corporations took up welfare work, Rhodes had built comfortable homes which he rented to his workmen at low rates. He had erected clubhouses, churches, and recreation grounds for them. He instructed me to spare no expense in looking after the health and happiness of all his workers under me, both white and black. One of his maxims was "The only employee worth having is a contented employee." This was borne out by my own experience. Just before Christmas the second year I was with him, I explained to Rhodes that it was customary for mining companies to give bonuses to their employees at this season, and that my staff of American engineers deserved something substantial, especially as we had made a large profit during the past year.

"That is quite right," replied Rhodes. These were his favorite words of affirmation.

I then handed him a sheet of paper on which I had figured out the amount each man should receive. Without even glancing at it, he picked up his pencil and scribbled across the face of it. "We have had a remarkably successful two years under Hays Hammond's management, due, as he says, to the ability, untiring energy, and self-sacrifice of his American staff. They are entitled to the sums he recommends."

"But you've not even looked to see how much I've suggested," I protested. "This is going to the board of directors, and you should at least know how much money is involved."

"You wouldn't recommend it if it weren't all right, would you?"

With this remark he dismissed a matter which amounted to nearly \$250,000 participation in the shares of his companies at cost.

One of the things that caused me considerable embarrassment at the time was the arrival of numerous young Englishmen, many of whom were Eton and Oxford graduates, seeking a billet in South Africa. Rhodes was under certain obligations to friends in England for political favors, past—and to come. He was importuned by many of his influential friends who wanted positions for these young men who came to South Africa. Rhodes would give them letters of introduction to me, requesting that I do what I could for them.

Few were qualified for any technical position at the mines, and I could use them in no other capacity. I would always give these young fellows a chance, however. Most of them professed their willingness to work at any kind of job, but they were invariably unsuited to the work and after a few days at the mine would return and admit that there was nothing for them to do. It was a waste of time and money for them to go to the mines even to look for a job.

The only other hope for these young men, it seemed to me, was in Rhodesia, so I would give them a letter to Jameson, who was just as much embarrassed as I was in trying to assist the "bearer." Finally I complained to Rhodes about this and suggested that the best way to repay his obligations was to form some kind of polo, golf, or cricket club at Kimberley, where they could spend their time until something better turned up. I told him it would cost him only about fifty thousand dollars a year. I sincerely sympathized with these fine fellows and felt it my duty to find employment for them in preference to those of any other nationality since the mines were under English ownership. But obviously, as I explained to Rhodes, it would demoralize my staff of engineers, who were specially qualified by education and training, if I should displace them in favor of incompetents. Rhodes accepted this view of the situation and with good-humor, I believe, although at considerable expense, provided graciously for his young friends.

Much of the affection which, given other conditions, would have centered elsewhere, was lavished on his home at Groote Schuur (the big barn). Rhodes purchased it in 1890 from one of the old Dutch families and rebuilt it in keeping with the Dutch architectural traditions: two stories, thatched gables, and large many-paned windows. It was beautifully located in a grove of pine and oak on the slope of

Devil's Peak, the outlying shoulder of Table Mountain. Looking from one of his bedroom windows he could see Table Mountain; from another he could view Cape Town harbor.

This home was filled with old colonial furniture and the best examples of domestic handicrafts. Even General Smuts—who had never met him and who long was bitter against him for his part in the Jameson Raid—admitted that Rhodes had helped to conserve what was precious in South Africa's past, and highly commended this spirit.

Dear as Groote Schuur was to him, his friends were dearer still. There were men such as W. T. Stead, Alfred Beit, and myself. To us he gave his confidence. There were two men in the course of his life whom he truly loved: first, Neville Pickering, secretary to the De Beers Company; and afterwards Dr. Jameson, familiarly known as Dr. Jim.

Rhodes never entirely recovered from the death of Neville Pickering some years before. Like himself, Pickering was threatened with tuberculosis. During one of the latter's attacks of illness, Rhodes had been obliged to go to Johannesburg to conduct important and delicate negotiations on behalf of the Consolidated Gold Fields. In the midst of these a telegram came saying Pickering was worse. He glanced at the message and then exclaimed to Dr. Hans Sauer, his companion in the transactions: "Get me a seat on tonight's coach! Quick! I must get back to Pickering. He's dying!"

"But, Rhodes, you can't go now. Everything depends on your being here."

Rhodes exclaimed impatiently: "What do I care? You know I have to go. Get me a seat!"

Sauer departed, but returned almost immediately and announced cheerfully: "You can't go. All seats are booked."

The choleric temper of Rhodes flared up. "I must go! Buy a seat from someone who has already booked. Hire a coach! Buy a coach! Do something! I'm going!"

And that night he went. For many days he kept his hopeless vigil at Pickering's bedside, letting his countless business affairs go unheeded until there was no further need to watch. Something went out of his life which, unlike Groote Schuur, could not be restored.

Dr. Jameson, brilliant young surgeon at the Kimberley mines, had attended Pickering in his last illness. It is possible that Jameson's habitual air of amused tolerance and cynical indifference dropped from him in this crisis, and it may have been this less known side of him that appealed to Rhodes. However it happened, from this time forward Dr. Jim succeeded Pickering in Rhodes's life; no one ever replaced him.

The enemies of Rhodes have denounced him as cold-blooded and heartless and quite willing to sacrifice his best friends should the cause warrant. Like so many other attacks upon him, this was not true. For example, when Groote Schuur burned, the news came first to Lord Grey, then acting administrator of Rhodesia, who had come to see Rhodes at Bulawayo. He hated the duty that had devolved upon him, of adding the tale of another misfortune to those which had already been heaped upon Rhodes. As they rode along that morning to visit the site Rhodes had selected for his tomb, they talked over the misadventures of the past year which had culminated in Jameson's surrender. Grey had waited for a suitable opportunity. Now he told Rhodes he had more bad news for him. At this Rhodes pulled in his horse and, his face drawn with agony, cried, "Good God! Out with it, man! What's happened?"

When informed that Groote Schuur had burned, he heaved a sigh and, as Stead relates, exclaimed: "Oh, thank God! Thank God! I thought you were going to tell me that Dr. Jim was dead. The house is burnt down. Well, what does that matter? We can always rebuild the house, but if Dr. Jim had died I should never have got over it."

Even after the Raid he loved Jameson none the less dearly, though during their separation at this time Jameson was apprehensive that Rhodes would hold him responsible and that their old-time friendship might be impaired. Rhodes had commented on the failure, "Jameson has upset my applecart."

Although Rhodes had but few intimate friends, there were many to whom he gave freely of his time, energy, and money. There was one man whom, it was jokingly said, he had picked out of the Milky Way and elevated to the status of a fixed star of magnitude. Again and again Rhodes had to refix him—financially and politically. Nev-

ertheless, this man became obsessed with the idea that Rhodes owed everything to him; that he was the original maker of Rhodes, who was jealous of him. Finally he assailed Rhodes viciously in a political campaign, which resulted in his own inglorious defeat.

A few months later, sitting around a table in a hotel in Kimberley, several of Rhodes's friends were joking about this man's attacks. One of them said, "Now, Mr. Rhodes, I suppose it is time for you once again to set this star in the heavens."

With a whimsical smile, he replied: "I suppose so. You know the poor devil is stony broke again!"

Many anecdotes might be cited as illustrative of this quality of mercy. For example, Sir Lewis Mitchell tells of an old Rhodesian pioneer who once sought help from Rhodes. Out of work, out at elbows, and reduced to a pitiable condition, he was about to state his case when, to his delight, he was hailed by name. The chief had recognized him.

Putting his hand on the man's shoulder, Rhodes said, "Not a word; a good square meal first!" He took him to the kitchen and told him to get what money he needed from his secretary, adding, "Come back tomorrow." When the man returned he found Rhodes in a temper. "You took only ten shillings." The old fellow had so obviously been ashamed to ask the secretary for more that Rhodes at once took him into town in his own carriage—went with him to the outfitters—completely clothed him—and gave him money to get back to Rhodesia.

Such a man as Rhodes could not fail to create in the hearts of many men a devotion so absolute that they not only were willing to risk their lives for him, but actually did so. Women, however, had little place in his life. It was not that he hated them: he was not a misogynist, though he might have been regarded as a misogynist. His excuse for not having married was that he had not the time to give a wife the attention she was entitled to receive. It may be, as Colley Cibber says, "Ambition is the only power that combats love." Yet it was significant that, at the time I visited him, in all the thirty rooms of Groote Schuur there was only one picture, a painting of a young woman by Sir Joshua Reynolds. It hung in the dining room above

the fireplace, where Rhodes could easily see it. He often told how as a boy he had observed it in the home of a relative, how he had been won by its beauty, how his love for it had increased with manhood, how finally he had been able to buy it. The story always ended with "Now I have my lady, and I am happy."

Rhodes was especially fond of my wife. One evening that I remember with particular pleasure we were visiting at Groote Schuur. During the conversation my wife sustained her argument by a quotation from Marcus Aurelius. He at once took us to his bedroom and pointed to two books lying on his night table. One was the Bible, the other Marcus Aurelius. He said he never went to sleep without reading something from both books. He was surprised and delighted that anybody, especially a woman, should be familiar with his favorite authority. He went on to mention a quotation which he was very proud to have written in Queen Victoria's guest book at Windsor. "*Coelum non animum mutant qui trans mare currant*" (They change the sky, but not the soul, who cross the sea). I told Rhodes that I should have written "*Oderint dum metuant*," since what did it matter that politicians in England and South Africa hated him so long as they feared him. Rhodes replied, "Your quotation is too much like playing to the gallery."

Following this discovery of their mutual fondness for Marcus Aurelius, Rhodes formed a great admiration for my wife's intellect. And here I wish to quote the following, which my wife had hurriedly scribbled with pencil in her notebook, describing Cecil Rhodes:

He has the superb head of a Roman Emperor. He is a man, and the most impersonal man I have ever known — strong, broad and splendid. He is not fine, nor keen, nor sensitive. The world is his omelet and the men the eggs which compose it. I can believe that he would lap human bodies like sandbags to build his fort, but the enemy should have equal vantage. He can crush and cut, but never pinch. Money is his steed; instinct his spur, and a generous power his aim. His weaknesses are but the outer fringe to his imperial nature.

And later as she began to know him better, she wrote this about Rhodes:

No book and scarcely a pamphlet written about South Africa is without a description of Mr. Rhodes. I can only give my personal impression and entirely from a woman's point of view. Mr. Rhodes is a great man. His brain is great, and as level as Table Mountain. There are no spiritual pinnacles to his nature, and he is not lacking in imagination and massive, forceful magnetism, in its accepted meaning. He gives one a sense of confidence in him and in oneself. You feel that he understands himself and that he understands you. He lives entirely beyond the pale of everyday life. The tender, gentle things of human intercourses are not for his consideration. His life is speeding at too great an impetus for him to be seen in detail, or to feel in detail. He is exceedingly generous, and tries to be just and noble. His affection gives place to his ambition, which is not a personal ambition. The man is the most impersonal personality—for he is a personality in spite of being impersonal—that I have ever met. His sympathies are for the human race, and not for the individuals. In this respect, he is unlike Mr. Beit and Mr. Barnato. Mr. Rhodes can be as bloodless as fate when people are not of use to him. They drop out of his life, as leaves from trees by a new growth or the spring budding. He simply has no place for a disused member. It is not that he means to forget or ignore them, but in his busy life, has no place for them. They are as out of place in his life as a bit of broken machinery would be in a steam engine.

One of the main reasons why Rhodes never married was as he said, he felt that a wife and family deserved much more time than he could ever give them. It is also true that he feared the intrusion of the fussy type of woman in his life, the type a friend of mine has

characterized as "hen-brained." His life was not without the influence and the pleasure of women's companionship, but he refused to allow any woman to gain sufficient hold on him to complicate or slow up the pursuit of his dreams. He enjoyed the society of intelligent women and he had many such friends in his social circle at the Cape.

Olive Schreiner pursued him before she turned against him and became one of his bitterest enemies. In her teens she had written that classic tale of the veldt, *The Story of an African Farm*. In spite of the fact that her family were Rhodes's great friends and that she always insisted she admired him, she later wrote a book called *Trooper Peter Halket of Mashonaland*, a venomous attack on the actions of Rhodes in Matabeleland. She told how this monster, Rhodes, had crushed the noble savage, how the poor natives had been staked to anthills and otherwise tortured, and how this land-grabber had defeated the will of God. Rhodes paid no attention; nor did he utter one word in refutation. She had overplayed her hand. The public for whom she wrote knew better.

A tragic episode of the last years of his life was the Princess Radziwill incident. This middle-aged Polish woman attempted to force her attentions on him, although he never was more than merely polite to her. Finally, she forged his name for £29,000. Rhodes was in England at the time. He was so infuriated that, in spite of warnings from his doctors, he made the long trip to Cape Town to testify, and on his deathbed gave evidence against her. She was convicted of forgery and sentenced to a year and a half in prison, but after several months in Cape Town jail, was released on grounds of ill health.

Rhodes's voice, like that of Theodore Roosevelt, broke into a falsetto whenever he became excited. This was particularly noticeable when he was talking of his life goal. His voice would climb higher and higher until at the climactic phrase "my North" it would be an octave above where he had begun. Contrary to the general impression, he was not a silent man; he would talk incessantly and in rolling periods on whatever ideas interested him at the moment. In a crisis he thought quickly, and acted with equal rapidity.

In spite of the fact that he usually acted with complete control, he

nevertheless was thoroughly human. On one occasion, when we were returning from our trip to Rhodesia, the large wagon carrying our luggage capsized crossing a spruit. I sat on the banks of the spruit smoking until I became impatient at the futile attempts of the natives to upright the wagon. I went over and made some suggestions, then returned and sat down by Rhodes. He smiled and said: "Hammond, the trouble with all you Americans is your desire to complete everything immediately. You have no patience. It took me ten years to effect the consolidation of the diamond mines at Kimberley. Your countrymen would have attempted to put it through in as many months, but I doubt whether they would have succeeded in creating any permanent trust." We sat there a while longer watching the natives. I knew Rhodes was very anxious to get back to Pretoria to have a talk with Kruger, but I simply waited, enjoying his nervousness as time went on.

He did not know I was aware of this until finally he got up and went over to undertake the supervision of the matter. I walked over to the scene with him to let him see that I appreciated the fact that even the imperturbable Englishmen possessed the same restless spirit as their American cousins.

In his personal habits Rhodes was inclined to be unconventional. Surroundings meant nothing to him. At Kimberley he lived under the most primitive conditions, even when comparatively wealthy; at Groote Schuur there was every luxury. He recognized no difference. Nor did he care anything about being well dressed. On his way to an audience with the sultan of Turkey he stopped to see the British ambassador, who was shocked to see him attired for his meeting in a shabby tweed suit. Fearing the consequences of this breach of sartorial etiquette, the ambassador told Rhodes he must wear the indispensable frock coat.

"I can't," replied Rhodes, "for I don't possess one."

With great presence of mind, the ambassador at once put his own overcoat over the offending garments, buttoned it, and warned Rhodes not to undo it if he valued his life.

So far as his clothes were concerned, or, in fact as regarded most of the details of his private life, Heaven knows what would have become of Rhodes if it had not been for Tony, a Cape boy—his cook

when on the veldt, his valet, and his purse bearer. Tony was a most remarkable man. His position was no sinecure. He was indispensable to Rhodes on his trips to London, for Rhodes rarely arrived there with the proper clothes—in the winters not heavy enough to keep him warm. Rhodes hated to buy clothes, but Tony would arrange to have the tailors waylay him and provide the wardrobe necessary for that visit.

Rhodes had never enjoyed robust health, but this did not really prove a handicap as it undoubtedly taught him the value of time and the necessity to conserve his strength for undertakings of prime importance.

On his wrist there was a small aneurism which by its throbbing indicated to him that he had reached the danger point of overexertion. His heart had never been equal to his spirit; as he grew older it fell steadily behind. As his forty-eighth year drew towards its close it was apparent to him that he had but little time left. He was not afraid of death; he had never known what it was to fear any person, much less any thing. He regretted with deep bitterness and sorrow that he was not to see the completion of what he had dreamed in far-off Oxford and in the darkness of the veldt.

"The great fault of life is its shortness," he exclaimed towards the last. "Just as one is beginning to know the game, one has to stop."

Kipling caught this:

Dreamer devout, by vision led
Beyond our guess or reach,
The travail of his spirit bred
Cities in place of speech.
So huge the all-mastering thought that drove—
So brief the term allowed—
Nations, not words, he linked to prove
His faith before the crowd.

And as Rhodes lay dying in his beloved Africa, his words were:
"So little done, so much to do."

For three days, thousands of warrior Matabele, his former foes and later allies, congregated to perform over his grave the cere-

monial of 'Mzlikazi, their chief and founder. They were honoring the man whom they regarded as their great white chief and friend. Each day the stately ceremonial continued; each night the sky was red with fires. Thousands of feet beat the ground in unison. War drums throbbed dolefully. The warriors' mournful songs ended in the darkness. Dressed in full war panoply, these chosen representatives of the proudest of the black natives with outthrust spears gave the bayete, the royal salute to their adopted chieftain. For the first and last time, such a tribute was paid to a white man in Africa.

CHAPTER FOURTEEN

The Winning of Rhodesia

DRAFTING THE MINING LAWS OF SOUTHERN RHODESIA — THE KINGDOM OF THE MATABELE — SLAGTER'S NEK — THE GREAT TREK — THE PLACE OF SLAUGHTER — JAMESON'S BARGAIN WITH LOBENGULA — THE WAY IS OPEN TO MASHONALAND — THE PIONEERS ADVANCE — THE UNECLEAN ONES — FORTY WHITES ATTACK TWO THOUSAND NATIVES — DESPERATE INVASION OF MATABELELAND — WILSON'S LAST STAND IN THE JUNGLES OF THE SHANGANI — THE SECOND MATABELE WAR — KILLING THE MOUTHPIECE OF GOD — "IT IS PEACE"

*J*he latitude given me by Rhodes in Johannesburg made my work for him far more congenial than had been my previous association with Barnato. I soon felt that I had gained my new employer's complete confidence so far as the management of the Consolidated Gold Fields of South Africa was concerned. In addition to supervising the mining interests of the Gold Fields, I spent considerable time in drafting the mining laws for the British South Africa Company (Chartered) in Rhodesia. The Company had already adopted the mistaken principle of the American mining law regarding the right of the owner of an apex of veins to follow the vein under the property of adjoining owners. As discussed in

Chapter XI, I should have much preferred the simpler mining laws of the Transvaal and Mexico, but it was too late to make the change.

I anticipated much difficulty and litigation from the inclusion of this provision, but H. U. Moffat, premier of Southern Rhodesia, in a recent letter assured me that the mining laws have proved suitable to the local needs and requirements of Rhodesia. As a matter of fact, with one exception, no disputes of importance have arisen. The idea of Rhodes in including this extralateral rights provision had been to attract capital into the country, and to accomplish this he had been willing to make concessions.

Rhodes's economic interests were never more than a means to the end of reaching his "North." Yet they were an essential part of his scheme: in order to make manifest destiny possible, he had to find mineral wealth.

The ancient mines of Mashonaland had been rediscovered in 1868 and brought to the notice of Europe by the American explorer and hunter, Adam Renders. A few years later Dr. Karl Mauch made an even more careful investigation. The reports of these explorers convinced Rhodes of the existence of gold in the North.

Therefore, in the fall of 1894, just after the First Matabele War, Rhodes and Dr. Jameson, the administrator of the district, and I went to Matabeleland and Mashonaland on a trip that was to have important and dramatic consequences. In order that the reader may have a clear picture of this country—later known as Rhodesia—I deem it essential to describe certain characteristics of it and its people, the many wars waged by the native tribes, and the ultimate winning of it by the white man.

Rhodesia embraces an area of 440,000 square miles; exceeding the combined areas of our New England, Middle Atlantic, and East North Central states. It includes all of the region extending from the Transvaal north to the borders of the Congo State and German East Africa. On the east it is bounded by Portuguese East Africa, Nyasaland, and German East Africa, and on the west by the Congo State, Portuguese West Africa, and Bechuanaland.

For the most part the interior of Rhodesia is a high plateau varying in altitude from 3000 to 5000 feet. It is fairly well watered—abundantly so in the rainy season, and in much of its topography



LOBENGULA



MATABELE

and vegetation strongly resembles parts of the western section of the United States, particularly Wyoming and New Mexico.

Rhodes's problems would have been simpler had Africa been left free of outside interference, but in the last decade of the nineteenth century the attention of Europe was suddenly focused upon it. The necessary annexations of native territory, which in prior decades had gone on as a matter of course, now became subjects for international discussion. To understand the whys and wherefores of the dramatic events related in the subsequent chapters, it is necessary also to grasp the historical background of the struggle now about to take place for the great regions north of the Boer republics.

South Africa has been known to the European world since Vasco da Gama rounded the Cape of Storms in 1497 and found the ocean route to the Indies. The Portuguese never attempted settlement, although occasionally their ships had to take refuge in Table Bay. When the Dutch supplanted the Portuguese as the great Eastern trading power, an outfitting station was set up in Cape Town in 1652.

The Dutch found nobody but roving Hottentots in the vicinity of the Cape. As the invaders gradually encroached on the Hottentot lands a series of wars began. For nearly a hundred and fifty years the Dutch pioneers, never numerous, led a pastoral existence and expanded slowly into the hinterland. In 1795, through no fault of theirs they found themselves under the British flag, due to the fact that Holland was France's involuntary ally in Europe and the British were mopping up enemy territory throughout the world. During the temporary truce with Napoleon between 1802 and 1804, Cape Colony was handed back to the Batavian Republic, as Holland was then termed. War broke out again, and the English recaptured the Cape in 1806. In 1814 the Dutch definitely ceded Cape Colony to England, and it remained a British colony until 1910 when it took its place in the newly formed Union of South Africa.

After 1814 English customs and laws were introduced into a population of only 42,000 white settlers, predominantly Dutch. From 1820 on, however, the English began to pour in and their language quickly spread throughout the colony.

In addition to an alien population, the British almost immediately found themselves faced with a native problem of great magnitude.

While in their early years the Dutch had had to face only the Hottentots, the British were now confronted with a major movement of peoples. The tribes of the great Bantu race were pushing down from the thickly inhabited regions of the North into the less populated districts of the South, thrusting before them the weaker peoples. Inevitably the Boer-English and Bantu fronts collided. These wars continued for many years.

Of all the Bantu tribes the fiercest and most warlike were the Zulu, the "Children of the Heavens." They fought in regiments, or impis, a thousand strong. They asked no quarter and gave none. Sheltered behind their long oval shields of oxhide, instead of hurling light assegais they used short-handled spears in the Roman thrusting fashion. The other native races melted away before them. Under their great chief Chaka they reached the zenith of their power. Fierce, intelligent, ruthless, he proved a superb military leader. He organized the Zulu for war and, like Attila the Hun, he annihilated his enemies, slaughtered their men, took their women. When Chaka entrusted a military undertaking to one of his chieftains he demanded not only its successful accomplishment but also that the entire booty be returned to his kraal.

Second only to him in ferocity was his great induna, 'Mzlikazi, the "Pathway of Blood." On one occasion, having conquered a tribe, 'Mzlikazi failed to send the spoils to Chaka, and the latter, in accordance with his custom, sent an army to exterminate his untrustworthy induna. 'Mzlikazi, hearing of the approach of the main army and knowing that he and his men would be clubbed to death with knobkerries if captured, led his army to conquer a kingdom for themselves. He went into the northern part of what is now the Transvaal, with probably no more than ten thousand warriors at the start, leaving a trail of desolation and destruction. Recruiting his numbers from the most warlike of the young men of the conquered tribes, he formed what was called the Matabele nation, the "Children of the Stars." Meanwhile Chaka had died and his equally bloodthirsty successor, Dingaan, ruled over the Zulu nation. By 1830 their incessant wars had depopulated a vast stretch of land.

There had always been friction between Boer and Englishman as

to the treatment of the blacks. The former regarded them as slaves; the latter, under the influence of the humanitarian spirit of Wilberforce, then sweeping England, regarded them as fellow men. This movement culminated in 1833 in the abolition of slavery throughout the British Empire. Thus the agricultural Boers found themselves at one stroke deprived of what they regarded as their most essential private property.

About twenty years before, in 1816, there had already been serious difficulty over the Boer treatment of natives. The outstanding example of this was the so-called Rebellion of Slagter's Nek. A Boer farmer named Frederik Bezuidenhout was accused of maltreating a native servant. Gathering a band of friends around him in the pass of the Winterberg Mountains, he resisted arrest and fired on the government forces. After a short conflict he was killed and the "rebellion" put down. Six of his comrades were tried for high treason by the British government; five of them were executed on the scaffold. The Boers, who considered the blacks as their property to do with as they wished, felt that this was not only a harsh but also an unjust penalty. It would have been quickly forgotten, however, had there been no other causes for bitterness between Boer and Englishman. Instead, it became a rallying cry for every anti-English demonstration.

The most reactionary of the Boers decided to move beyond the frontier; with this end in view they set out on the Great Trek. One party went into what is now Natal—although its members well knew that the Zulu power would have to be conciliated or otherwise dealt with.

In 1837 a delegation was sent to Dingaan, who received them in friendly fashion and gave them land. Then, at a farewell feast, he massacred them at the Hill of Slaughter; and fell on the main body of immigrants and slew three hundred at Weenen, the "Place of Weeping."

In vengeance for this slaughter, the Boer leader Pretorius took out against Dingaan a punitive commando of four hundred white men and a few natives. Ten impis of Zulu fell upon the Dutch laager; the river by which this fight took place was called the Blood

River, and the victory which the Boers won is still celebrated among them as Dingaan's Day.

But the Boers were destined to be disappointed in their hope of setting up a republic in Natal. The English were already at Durban and had no intention of having a Boer hinterland. After a brief conflict, the Boers again set off on trek in 1844, and this time in the valleys of the Orange, the Vaal, and the Limpopo formed the Transvaal Republic. This district had been depopulated of the Bechuana and other native tribes by the Matabele forays.

Meanwhile another branch of the Dutch voortrekkers had come up against the warriors of 'Mzlikazi. Every spruit was a battle-ground, because in such arid country life and water were synonymous terms, and every kopje, or hillock, which commanded these small streams was an outpost, costing blood. For two years the fighting went on. The Matabele, in spite of reckless bravery, were cut down in hundreds by the Boer rifles. The eventual outcome of the struggle was the retirement of 'Mzlikazi to the north of the Limpopo River, where he fell upon the unfortunate Mashona, who lived in that district, as earlier he had butchered the Bechuana. He established a capital, a huge kraal, at Bulawayo, the "Place of Slaughter" and there his son, Lobengula, "he who drives like the wind," held the throne.

Lobengula was a huge man; in later life he became so enormously fat and unwieldy that he had to be carried about in an oxcart. Too sluggish himself to lead his impis, he preferred diplomacy. He lived in his goat kraal, surrounded by his eighty women. Majesty was simulated by a band of leather serving for a crown and blue monkey fur arranged at his waist like a Scotch sporran. Otherwise ceremony at the end of which the king, stepping into the midst of champagne from concession seekers. He was not only extremely fond of it, but was a connoisseur and insisted that the wine be of superior and expensive vintage.

The Matabele had carefully treasured many of the warlike traditions of their Zulu forefathers. Among these was the annual ceremony at the end of which the king, stepping into the midst of the kraal, lifted his great assegai and hurled it from him. As it struck, still quivering in the ground, the warriors bounded forward

to see whither it pointed, for in that direction the impis were to make relentless war during the ensuing year.

Of course, as time went on, it became harder and harder to find humans available for slaughter within easy reach of Bulawayo. The British had assumed the care of the peaceful Bechuana; they were not to be touched.

The next misfortune for Lobengula was the formation of the Chartered Company which intended to enter the Mashona country to the north of the Matabele. There was only one road by which Rhodes could penetrate Mashona territory. He could not go to the east because of the Portuguese. He could not go straight north because of the Boer republics. He had to go around the western end of the Republics through Bechuanaland and then cross the country of the Matabele north of the Limpopo into Mashonaland, there to establish his settlements and to develop the mineral wealth reputed to exist.

In 1890, in addition to being head of the Chartered Company, Rhodes had become premier of the Cape. He had, therefore, both political and economic power. Cape Colony could not develop the North but the Company could, while Rhodes and his associates would furnish the money. Rhodes was desperately afraid some power, Boer or German or Portuguese, would forestall him. He knew that other concession hunters were with Lobengula; there were at least eleven. He tried to get Sir Hercules Robinson, high commissioner of Cape Colony, to do something about Matabeleland, and by persistent endeavor he had it arranged to send the Reverend J. S. Moffat to Lobengula. The former secured an agreement that Lobengula would not alienate any of his lands without the consent of the high commissioner. This effectually blocked Kruger's designs.

Rhodes now prepared a mission of his own to obtain what he wanted from Lobengula. To protect his interests he sent to Bulawayo his most trusted partner, C. D. Rudd, his Oxford friend, Rochfort Maguire, and F. R. Thompson, known as Matabele Thompson because of his knowledge of the natives. In addition to a pension of a hundred pounds a month, Lobengula was to have a steamboat on the Zambezi and one thousand Martini-Henry

breech-loading rifles and with them one hundred thousand rounds of ball cartridges. In return, Lobengula promised that Rhodes's company should have complete control of all metals and minerals in his kingdom and full power to collect the revenues; also, Rhodes could exclude all other concession hunters. This agreement gave no rights to grant land titles. Rhodes went through the form of obtaining this by buying up a previous concession which Lobengula had granted to one Eduard Lippert in 1891, upon which the Chartered Company later issued land patents.

Many people in South Africa were alarmed at the Rudd Concession. They thought in particular that the Martini rifles would lead inevitably to a breach of the peace. Rhodes in his customary way quieted discontent, arguing that rifles were more humane than assegais. He not only had to square the Cape Parliament but the English Parliament as well, and this, in diplomatically judicious but effective fashion, he succeeded in doing.

He had to go to England to get the Company's charter confirmed. He also knew that one of his rival concessionaires had taken two of Lobengula's indunas to London to see the Queen, and he feared the effect of this. Therefore, off to London he went. He knew Lobengula was not entirely satisfied with his bargain. Rudd had been forced to conceal the concession in an ant's nest. Rhodes, who had great confidence in Dr. Jameson, asked him to go to Bulawayo to keep Lobengula in good-humor. The story of what occurred is not entirely certain beyond the fact that Lobengula's gout, to which he was becoming increasingly subject, was relieved by Jameson, with subsequent gratitude on the part of the monarch. Furthermore, Jameson, knowing the savage's childish delight in pageantry, composed a letter purporting to come from the great White Queen herself and had it delivered in a gorgeously decorated coach accompanied by three officers clad in the uniform of the Royal Horse Guards.

Meanwhile Rhodes had been in England, had seen the Queen and won her esteem, had seen Salisbury and conciliated him, had seen his enemies and satisfied their scruples. He returned with the promised charter.

His next move was to get settlers into Mashonaland. He con-

sulted the commander of the Bechuanaland police but could not come to terms. He then hired Frank Johnston, trader, merchant, and mining man, for ninety-seven thousand pounds to recruit a force for the conquest.

The result was the famous Pioneers, two hundred in number, carefully selected from all trades and classes, partially drilled and disciplined in military fashion. With them went five hundred mounted police equipped and paid by the Chartered Company. Their guide was Frederick Selous, one of the great elephant hunters of Africa, whose name is still a household word there. Selous died in the World War, fighting the Germans in German East Africa. There was also Maurice Gifford, who was with me on my later Matabele trip. He was a younger son of an old English family with a fighting record in every war. To interpret for them went Johann Colenbrander, half Dutch, half English, frontier-born, whose knowledge of the Matabele tongue and other native dialects was of inestimable value. All these were young men, "infaans," as the Matabele called them, full of hope and enthusiasm. No river was too wide nor forest too dense for them to cross or penetrate.

Although Jameson had extracted from Lobengula a half-hearted promise "to give the road," the Pioneers decided to avoid Bulawayo so that the impis might not be tempted to make a surprise attack. Nevertheless, every precaution was taken. Each night when they outspanned their fifty ox-wagons they formed them in a square laager, front to end, with Maxims guarding the corners.

Founding Fort Victoria on the way, they finally reached the site of Salisbury in Mashonaland, September, 1890, and set to work at once to build the town. They had to contend with many difficulties. The rainy season began; the long road south was impassable with mud, a railway was started from Beira on the east coast but had to be abandoned, the police force cost two hundred fifty thousand pounds a year, food had to be carted seventeen hundred miles from the Cape.

It was a well-planned stroke of genius when Rhodes appointed Dr. Jameson administrator for the Chartered Company in Mashonaland in 1892. It was never openly expressed between these two Englishmen that favors had been given or received, though the feel-

ing of gratitude and esteem was mutual. Although Jameson was neither soldier nor statesman, yet he was able to accomplish what was little short of miraculous both in warfare with the natives and in statecraft. Furthermore, this gambler by nature saved the Chartered shareholders from great losses by his economical management of the Company's affairs. For example, the expensive police were replaced by the unpaid volunteer Mashonaland Horse. But to the great distress of Jameson and Rhodes and the stockholders of the Chartered Company, no profitable gold deposits had been developed as yet.

Just at this moment, when the stock of the Company was steadily sinking, the young warriors of the Matabele began the war which everyone on the frontier had always regarded as inevitable. Jameson himself thought it would come; Rhodes publicly professed his belief in peace, although he had told people privately that as soon as the Matabele interfered with his rights he "would end their game." This was a reluctant confession that the peaceful amalgamation which both had been aiming at was in reality a forlorn hope.

Lobengula undoubtedly had had no intention when he granted the Rudd Concession of giving up his feudal rights over the Mashona, the Zulu term for "Unclean Ones." Among these rights was that of pasturing his cattle on the Mashona farms. In May, 1893, a few Mashona at Victoria stole some lengths of wire from the telegraph line Rhodes had built to the Cape. They were detected by the English and a fine of cattle imposed on them. This they paid with Lobengula's cattle. Lobengula thereupon sent an impi under Manyao to punish the Mashona. These young warriors remained about Victoria for a week murdering and burning and plundering the Mashona, although little was done to the whites beyond making threats.

Jameson, who was at Salisbury, the capital of Mashonaland, one hundred miles away, hastened to Victoria. He summoned the native leaders to an immediate indaba. He absolutely refused to give up any Mashona. He delivered an ultimatum to Manyao telling him to be beyond the border within an hour. Although an appeal for help had been sent to all the Mashonaland Horse, only about forty had assembled when Jameson gave the order to attack the Matabele

who, instead of carrying out his orders, had made camp a short distance away.

What the Matabele thought when the little line deployed before their hundreds can only be conjectured. Jameson said Matabele fired on him first, though the evidence on this point is conflicting. Some thirty-seven natives fell in this sortie; no attack was made on the whites.

Jameson at once telegraphed the news to Rhodes. He urged sending a punitive force of a thousand men against the Matabele immediately. The war spirit of the settlers was high. Furthermore, everyone realized that Lobengula would not be able to hold his fighters in check. Rhodes paid out of his own pocket the cost of the equipment of the expedition which nearly every white in Mashonaland joined.

The very boldness and swiftness of the contemplated invasion offered the only chance in its favor. The grim determination of the white man, when stripped of the veneer of civilization, is more relentless, more persistent, and more terrible than the ferocity of the most formidable black warrior who ever trod the African continent. Apart from this consideration, it seemed from a military point of view a hopeless venture. What chance would a handful of settlers have against the impis of well-armed Matabele?

The fact that this raid was successful and that Jameson's later raid of 1895 was unsuccessful does not detract from an inevitable comparison. Here, as in the later raid, Jameson betrayed a lack of judgment. In this instance, however, Fortune smiled upon him. None the less, he had tempted Fate. The defeat of the advance guard would have meant the massacre of every white man, woman, and child north of the Limpopo River.

The total effective force, about a thousand all told, white and native, advanced into Matabeleland in two columns which united at Iron Mine Hill, so called because prehistoric workers in Rhodesia had dug there for iron ore. Then they crossed the frontier of Matabeleland and marched on Bulawayo.

The little army's method of defense was adopted from old-time Boer tactics. Twenty-two commissary wagons, each drawn by sixteen oxen, were driven in double column, protected on all sides by

mounted men and artillery. Within three minutes of the time an alarm was sounded it was possible to form the wagons into a laager and place a piece of artillery at each angle. It was decided that the horsemen, if defeated, should retreat within the square, and that the final stand to oppose the onrush of the Matabele should be made with the wagons as a barricade.

By continuous fighting and marching the punitive column came close to Bulawayo. Lobengula then set fire to his huge kraal of twenty thousand native huts, loaded his treasure on seven wagons, drove fifty thousand cattle over his trail to obliterate it, and fled north to the impenetrable jungles of the Shangani River. Dr. Jameson, who was directing the expedition in a nonmilitary capacity, sent a letter to the Matabele monarch promising him safe-conduct if he would return for an indaba. Lobengula replied that he would come back but, when a few days had elapsed without his arrival at the English camp, Colonel Patrick Forbes, military commander of the column, called for volunteers to trace and, if necessary, capture Lobengula. One hundred and sixty went to the Shangani, but only thirty-seven were selected to follow Major Alan Wilson on the dash across the river after the king.

The Wilson Patrol proceeded about four miles and then made another camp. It was noticed that the Matabele were showing themselves in ever-increasing number. Wilson could still have retraced his path, but he was awaiting word from Colonel Forbes who was to send him reinforcements. The forces of the Matabele, augmenting hourly, finally made an attack at daybreak. After hours of fighting Wilson realized that his situation was desperate; there was still no sign of Forbes. He then called upon his most able scout, Frederick Russell Burnham, to perform the almost impossible task of breaking through the ring of savages to reach Forbes.

Burnham selected Ingram, an American, and Gooding, an Australian, to accompany him. Using every precaution which the danger prescribed and every art he had learned from years of Indian fighting in the American West and scouting in South Africa, Burnham succeeded in leading his companions through the encircling impis and by a miracle reached the banks of the Shangani River.

The drift, or ford, over the river by which they had crossed shortly before had vanished. A red muddy torrent confronted them. The scouts had been sixteen hours in the saddle and the horses were nearly exhausted, yet they succeeded in crossing and reaching Forbes. As Burnham swung himself from the saddle, he said heavily, "We are all that are left."

When Rhodes and I visited this part of the country the following year, we learned from natives who had been engaged in the Wilson massacre that it had cost Lobengula eighty men of the blood royal and five hundred warriors to kill Wilson and his thirty-four men. It was said that Wilson was among the last to fall, and that the wounded men loaded their rifles and passed them to him during the final stages of the defense. But when both his arms were broken and he could no longer shoot, he stepped from behind the barricade of dead horses and walked toward the Matabele, who were firing. Then it was that a young warrior advanced toward him and stabbed him with a spear. In spite of his mortal wound, Wilson still continued to approach. In fear, the warrior shouted, "This man is bewitched; he cannot be killed," and threw away his spear just as Wilson pitched forward on his face, dead.

We were also told by the natives that in a lull of the firing, the heroic Englishmen sang a song that the natives often heard them sing in the church at Victoria. It was the National Anthem, *God Save the Queen*. The natives were appalled when they found that the men they had massacred were infaans. They clapped their hands to their mouths and exclaimed, "If infaans can fight like this, what will we do when the bearded men come to avenge them?" Later, the bones of the Wilson Patrol were gathered up, and now rest beside the grave of their great chief, Rhodes, in the Matoppo Hills.

Wilson's Last Stand was produced on the stage, as a patriotic play, and ran in London for two years to crowded houses.

One thing that helped to save the settlers was that Lobengula's warriors had got the idea that their newly acquired rifles must be more effective than their native spears; and most of them persisted in using their guns in the fighting that followed, firing wildly in-

254 The Autobiography of John Hays Hammond

stead of making their charges with the stabbing weapons they could handle so dexterously.

Also they imagined that by raising the sight of the rifle to the highest elevation they could make it shoot straighter and harder. Had they thrown away their rifles and rushed the white men while on the march, or caught them at night when the skill of the white marksmen would have availed them little, they could have annihilated the column.

Lobengula was not captured. He had no part in the Matabele surrender, and died of smallpox in the jungles of the Shangani a few months later. All the head chiefs under command of Manyao marched to Bulawayo and surrendered. On Christmas Day, 1893, peace was made with the Matabele, and the whole of Matabeleland and Mashonaland was thrown open to settlement.

In January, 1895, Rhodes was at the height of his power and popularity. He had been made a member of the Privy Council and was further rewarded by the renaming of Matabeleland and Mashonaland as "Rhodesia." On many occasions Rhodes expressed his gratification that the country had been named for him and declared that he would devote the rest of his life to earning the honor bestowed upon him. As he had rescued this large territory from savagery practically single-handed, he undoubtedly was entitled to the tribute. For a much lighter consideration, a certain Italian peddler of pickles was honored—one Amerigo Vespucci, who accompanied an expedition to Venezuela, wrote a book about that country, and without having visited any other portion of the two great continents, had his name given to North and South America.

The result of the war was to turn over to the Chartered Company all the lands Lobengula had claimed as his own. Dr. Jameson was to be administrator of the conquered territory, as well as of Mashonaland. Two land reserves were set up for the natives, but outside of this comparatively limited space, all lands could be granted by the Company as it pleased. The stock of the Chartered Company went booming and within a few months the old goat kraal of Lobengula became the town of Bulawayo, the capital of Southern Rhodesia.

Although life was always much simpler at Bulawayo than at Cape

Town or even Johannesburg, the inevitable dinners and amateur theatricals typical of all English settlements were soon being given where but a short time before the Matabele impis had drilled. Social ethics were not exceptionally strict; "slightly married" couples mingled freely with those more legally bound together. In fact, almost anyone, however tainted socially in the Old World, could find recognition on the frontier of South Africa.

For three years the peace continued, but the Matabele were by no means ready to admit that they had been definitely conquered. Furthermore, there were undoubtedly native grievances against the whites. This dissatisfaction was kept alive by the witch doctors who, after Lobengula's death, were in control. These priests preached to the natives that Lobengula's defeat was due to his failure to follow their counsels and "make medicine" as his father Mzilikazi had done.

After the Jameson Raid, when the Matabele learned that Dr. Jameson was a prisoner in the hands of the Boers and that "his medicine had gone weak" and his troops had been captured, they realized that their opportunity had come. They began to plan an uprising.

The Second Matabele War owed its inspiration chiefly to the head high priest, who was called the 'Mlimo and claimed to be the "mouthpiece of God." He declared that he would make the native warriors invulnerable to the white men's bullets, and gave orders that on a certain night they should attack simultaneously over the whole of Rhodesia. Part of the plan was that on the designated night, when the moon would be full, every native servant should kill his master, and that no woman or child should be spared in the general massacre to follow.

One day a native woman was seen entering the town of Bulawayo pretending that she was carrying a load of firewood. The guard stopped her and questioned her. It seemed to him that her load was unreasonably heavy. On examination it was found to contain a number of assegais, with which every servant in the town was to be armed.

Now, no white community can be safely trusted with a military secret, but untutored black savages will keep one in a silence as of

the grave. It is likely that the 'Mlimo's program, involving the murder of every white person in Rhodesia, undoubtedly would have matured had it not been for the impatience of a group of young native warriors on the Inhembesi River, forty-five miles from Bulawayo. They began killing the colonists three days before the time agreed upon.

Thus suddenly awakened to the peril, the whites at Bulawayo at once organized military units and called in assistance from the countryside. Nevertheless, many were massacred, and for a while the situation was desperate. Bulawayo was so closely besieged that its defenders had actually planned the killing of their own women and children when the first relief column reached them.

At this juncture there arrived in Bulawayo a young man named Armstrong, commissioner for a neighboring district, who had an important communication to make. It related to a Matabele youth, who had suggested to him a means whereby the 'Mlimo, who directed all the operations of the foe, might be killed. All of his own family had been killed by the 'Mlimo, and he thirsted for revenge. Furthermore, he had a shrewd notion that the whites would win the war in the end, their "medicine" being probably more powerful. The Matabele youth explained that the 'Mlimo dwelt in a cave in a certain place in the Matoppo Hills, where it might be possible to take him by surprise and slay him.

Of course, the story might be a trap; there was no telling. But desperate emergencies demand the taking of desperate risks, and the upshot of the matter was that the duty of stalking the 'Mlimo and catching him in his mountain lair was assigned to Frederick R. Burnham and young Armstrong. The latter, though a mere boy, was keen-witted and fearless as his leader. Major Burnham tells the story fully and interestingly in his book, *Scouting on Two Continents*.

The two men started for the mountains and found their way at length to the neighborhood of the cave, which, it appears, was not the 'Mlimo's habitation but, so to speak, his church. It was a sacred place, which none but he dared enter. When he spoke in a loud voice at the cave's mouth, an echo was heard, and this was supposed to be the utterance of the Great Spirit. He translated that utterance

as he chose, and the true believers bowed in recognition of supernatural power.

Not far from the cave was a village of about a hundred straw-thatched native huts. And when Burnham and Armstrong arrived on the scene there was a whole impi of warriors assembled out in front. They were there to be rendered immune to injury by white men's bullets, a feature of the ceremonial being the skinning of a live ox and the eating of it raw.

Notwithstanding the difficulty of eluding observation, Burnham and Armstrong succeeded in getting into the cave undetected. For a considerable distance they had crawled on their bellies, screening their slow and cautious movements with branches of mimosa held before them. Their horses had been tethered in a thicket.

Once inside the cave, they had only to wait until the 'Mlimo should enter; and after a while he came. He was a man about sixty years of age, very black, sharp-featured, and with a cruel, crafty cast of countenance.

"This is your job," whispered Burnham to his companion.

"No," replied Armstrong, "you do it."

Burnham, who already had the 'Mlimo covered with his rifle, said to him, "You claim to be immune to the white man's bullets—stop this one," and fired. He shot him through the body, just below the heart. The "mouthpiece of God" fell dead.

There was not a moment to be lost. Burnham and Armstrong leaped over the body and down the trail in the direction of their horses. Immediately, of course, there was tremendous excitement. Hundreds of natives encamped near by picked up their guns which were scattered on the ground and started in pursuit of the fugitives. In order to distract them, Burnham and Armstrong paused in their flight long enough to set fire to the village. Burnham's first match ignited slowly, flickered, and went out. The second gave a quick flame, and the straw thatch began to burn. It was all that was necessary; the fire spread, and the Matabele stopped to put it out.

Burnham and Armstrong soon reached their horses and made their escape. When they felt that they were safe, they looked back

and saw a great cloud of black smoke rolling over the granite hill above the cave.

Although the killing of the 'Mlimo destroyed the myth that centered about him and brought despair to the hearts of the Matabele, most of whom surrendered, there was still a small group of irreconcilables led by a chief named Babyaan. From his lair in the Matoppo Hills he carried on constant guerilla warfare against near-by Bulawayo. The situation was still dangerous when Rhodes stepped in.

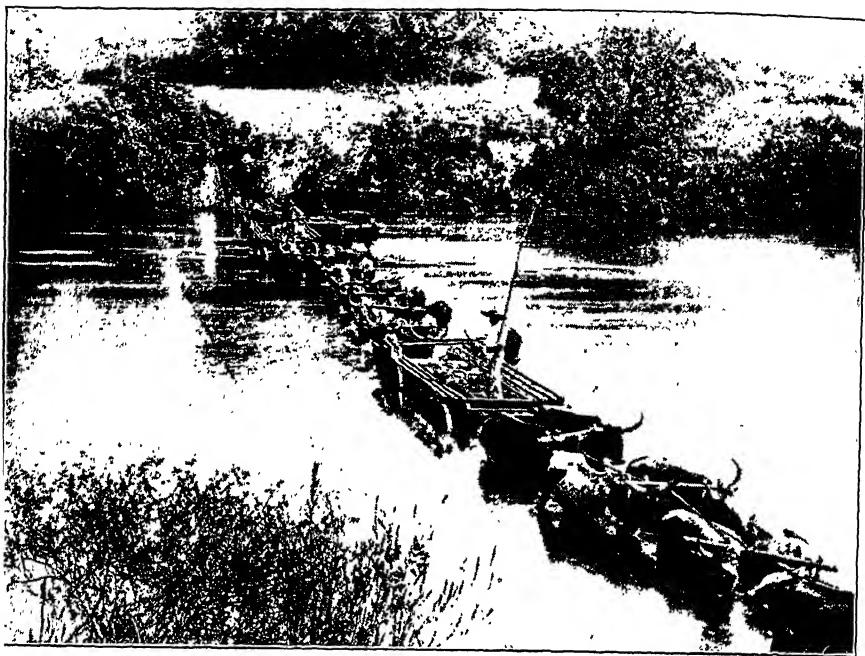
Nothing better illustrates the character of Rhodes than this oft-told story of how he ended the Second Matabele War. It is fortunate that he was in Rhodesia at this time. Through the failure of the Jameson Raid, Rhodes was stripped of his great political power. No help could be expected from England; she had enough international complications to straighten out at the moment. On the one hand, Rhodes's great fortune was not sufficient to support a war indefinitely prolonged; on the other, so long as the blacks remained unconquered no settlers would come to Rhodesia.

Rhodes proposed to go alone and unarmed into the Matoppo Hills, there to meet the indunas of the Matabele and endeavor to pacify them. He knew that the warriors desired his life beyond that of any other white man. All his friends and companions urged him not to go, adding entreaty to entreaty in a cumulative effort to prevent what they regarded as a useless sacrifice. Rhodes resolutely refused to listen to them. Instead, he summoned Johann Colenbrander and asked him to get in touch with one of the late 'Mzilikazi's wives and through her to make arrangements for an indaba with the Matabele indunas.

It was through the offices of this old Kaffir woman that the conference between Rhodes and the indunas was finally effected. Sarah Gertrude Millin, in her book *Rhodes*, says: "This is the old woman with the bunched-together face, and the rheumy slits of eyes, and the arms like sapless branches and the hands like dead twigs and the empty sacks of breasts, whose portrait hangs in Rhodes's bedroom—the only portrait of a woman in Rhodes's house today, the only one he ever did have except a painting by Reynolds he had covetted in his youth and bought out of his wealth."



VOORTREKKERS



OXCARTS CROSSING A STREAM

It took a long time before the wary Matabele would agree to a meeting. They suspected treachery. Finally consent was obtained and Rhodes selected three men to accompany him. Colenbrander, of course, had to go as interpreter. Dr. Hans Sauer, who had been associated with Rhodes more or less closely since Kimberley days and who was a Reform prisoner after the Jameson Raid, insisted on being of the party. Vere Stent, the representative of a Cape Town newspaper, insisted on going because he was sure his youth would protect him and he thought the world ought to have an accurate account of how the others died.

On the appointed day Rhodes and his companions went up into the Matoppos. They found the indunas in a vlei; Babyaan was seated on a rock, the others were standing. I have heard Rhodes tell the story of how he looked Babyaan sternly in the eye and ordered: "Get up!"

Babyaan rose sullenly, and Rhodes took his seat. Then a crowd of impetuous young warriors came thrusting forward, brandishing their assegais menacingly and shouting: "Stab! Stab! Let him roast like a pheasant on the fire."

Without a sign of perturbation, Rhodes spoke quietly to Babyaan. "Tell your men to sit down." The older and calmer indunas once more brought the crowd to silence.

Rhodes's action was a remarkable illustration of the force of a dominating personality. The instant he took the seat from the chief, Babyaan was on the defensive and his attitude was that of an accused criminal before a judge.

When all was quiet Rhodes spoke, Colenbrander interpreting rapidly. "You have killed my white people. Why have you done this?" was his first question. The long indaba went on while the issue hung in the balance. A single misstep on the part of Rhodes and his life would have answered for it. But Rhodes listened encouragingly as induna after induna came forward to pour out his wrongs.

He was no longer the arrogant empire builder; he was the father listening to his children with infinite patience. But at last he demanded of the chiefs: "Now, for the future, is it peace? Or is it

war?" And the indunas, each laying a small stick at his feet in sign of surrender, declared "It is peace."

No one believed that Rhodes would come back alive out of the Matoppos. He was greeted as one returned from the dead. He told his friends that not only had he made peace but that many indunas were coming to Bulawayo for a great series of indabas to arrange matters definitely for the future.

At these meetings Colenbrander again interpreted. On the last day of the conferences Rhodes spoke in praise of Colenbrander, giving him credit for the peaceful understanding that had so fortunately been reached. Then Samabulane, an old induna, rose and spoke in the pure liquid Zulu.

"We the Matabele all know the great Johann. We knew him as a promising youth. We remember his daring deeds as a young man. We know he was the voice of great men sent to our King Lobengula. But as compared to the Great White Chief whose words I am now answering, the Great Johann is only the tick bird that picks the ticks off the rhinoceros."

So it was that Rhodes came to be called Lamula 'Mkunzi—"he who separates fighting bulls."

CHAPTER FIFTEEN

Trekking Through Matabeleland

WITH RHODES INTO THE HINTERLAND — THE YANKEE SPIDER VERSUS THE CAPE CART — MY FIRST MEETING WITH DR. JAMESON—BLUE BEADS AT A DISCOUNT—SPEAKING OF LIONS—VARIED DISCUSSIONS—ASCERTAINING THE MINERAL WEALTH OF RHODESIA—BURNHAM'S WELL SHOWS THE WAY TO THE GREAT COPPER DEPOSITS—PREHISTORIC MINES OF EAST AFRICA—I ADVISE RHODES TO REOPEN THE ANCIENT WORKINGS—A TENABLE THEORY—THE GOLD OF OPHIR—KING SOLOMON AND HIRAM OF TYRE FORM THE FIRST MINING CORPORATION—RIDER HAGGARD HAS A WORD TO SAY—“ROUND THE CAMP-FIRE”

*In 1891 Lord Randolph Churchill was in Mashonaland collecting material for a series of articles on South Africa for the London *Daily Mail*. One of these articles dealt with mines. Since the most important feature of the new country was the possible occurrence of gold in profitable quantities, he had employed two American mining experts to examine and report on the abandoned workings. These experts had without qualification condemned the entire country on the theory that the veins, or reefs, were only gash-veins without persistence in depth. Churchill accepted this evaluation as final, and published it not only in his articles, but also in the resulting*

book, *Men, Mines, and Animals in South Africa*, which was presented to the public the following year. Coming from a man of Churchill's standing, the report that the country held out no inducement to mining investors was a serious blow to Rhodes's aspirations.

Rhodes, however, was never a man lightly to abandon his cherished plans. In spite of this adverse report he still believed that the country possessed a potential gold-mining field. In 1894, therefore, he asked me to conduct a personal investigation to determine whether the veins on these abandoned workings had really pinched out, or whether the American experts had been mistaken. Rhodes also suggested to me that the country might contain other minerals which could be exploited profitably.

I had now been long enough on the Rand to be satisfied that the Rhodes properties could get along without my supervision for a few months. Accordingly, it was arranged that during August and September of this year Rhodes and I should make a trip through Mashonaland, Matabeleland, and Manicaland in company with Dr. Jameson, Sir John Willoughby, Maurice Gifford, Robert Williams, and Jefferson Clark. I took with me also two of my assistants from Johannesburg, J. A. Chalmers and Dr. F. H. Hatch.

I had hired a private stagecoach to transport my engineers and myself five hundred miles from Pretoria to Bulawayo, where Rhodes and Jameson were to meet us. Loaded to the gunwales as we were, we were frequently compelled to leap out when the stage threatened to capsize on the rough trail. In fact, sometimes it actually did capsize without warning, although fortunately no one of us was injured in these accidents.

There had to be numerous readjustments of luggage, following the frequent capsizings of the stage. Whenever we stopped an irrepressible suitcase marked "W. K." kept appearing. I ordered it chucked out several times, but it was always there at the next rearrangement of luggage. Finally I said: "I wonder who W. K. is. There's no one with those initials here." Chalmers, one of the most faithful, reticent, and efficient of my staff, replied that the suitcase was his.

I said, "But those are not your initials."

"No," he admitted. "I borrowed the suitcase."

"Didn't you notice," I replied, "that we've been chucking it out?"

"Yes, I know," he smiled, "I've managed to retrieve it each time."

The laugh was on me and the rest of our party who, in spite of my orders to travel light, had indulged ourselves as to the amount of baggage we carried. Chalmers, being a conscientious and thrifty Scotchman, was the only one of the party who had literally obeyed my injunction.

From Bulawayo on, Rhodes and the other members of the party traveled in a Cape cart, a high top-heavy, two-wheeled vehicle, uncomfortable and predisposed to tip on the slightest provocation. Jeff Clark and I, being Americans, were given a "Yankee spider," as the English contemptuously called our vehicle. It was a light buggy, which seemed to Rhodes altogether too frail for such a rough trip as we were making. More than once I invited him to ride with me, but he always declined. After several days, however, I induced him to try this new method of locomotion; he was soon convinced that the buggy was not only much more comfortable, but was safer than the Cape cart. After this trip, many of the Yankee spiders made by the Studebaker Company of America were introduced into Rhodesia.

At Bulawayo I met for the first time the famous Dr. Leander Starr Jameson, whom I had not seen before as he had been busy with his duties as administrator of what was coming to be known as Rhodesia. Jameson was small of stature, slightly built. His brown eyes, alert and brilliant, were set far apart. His personality was forceful with a magnetism which led his men to follow him in whatever enterprise he might recommend, however desperate.

Jameson had abandoned the safe and sure position of a resident medical officer in a London hospital to seek his fortune in Africa. As a brilliant physician and surgeon in the De Beers Company hospital at Kimberley he was credited with saving the lives of many who were later to be his enemies.

Jameson's presence in Africa at this time was the result of pure chance. The Kimberley position he came to fill had previously been offered to Dr. Henry A. Wolff, an American graduate of the Harvard Medical School. Dr. Wolff arrived in Kimberley only to find

that his letter of acceptance had never been received, and Dr. Jameson already on duty.

This episode shows how momentous issues often hang on trivialities. Had Wolff's letter reached its destination, Dr. Jameson would not have gone to Africa and the Conquest of Rhodesia would probably have been postponed, since there was no one with ability comparable to that of Jameson to whom Rhodes could have entrusted that difficult enterprise.

Jameson was a most engaging companion; there was in him a spirit of daring, and a willingness to risk all on the throw of the die, that at times was regarded by less adventurous souls as foolhardy. As administrator of the Chartered Company in Mashonaland he had held in his hand the scales of peace and war and had done an excellent job.

His health, like that of Rhodes, was far from robust. Both men labored always under the strain of fighting against time. No sooner was one problem out of the way than two new ones presented themselves. The solution of every one required immediate decision and positive action. Jameson loved the excitement of this adventurous existence. He cajoled the Matabele chiefs when he could; when he could not, he fought and conquered them.

Hour after hour and evening after evening he would listen to Rhodes talking about his "North," would smile at him tolerantly and doubtfully. Yet, in spite of the fact that he considered these ideas as "dreams," when called on he would go out and risk his life to realize them for Rhodes.

They were an extraordinary pair: both had the pioneer instinct. As I have said before, one of the traits I admired especially in Rhodes was his high regard for the pioneer. At many a Chartered Company meeting, I have seen him pace the floor, advocating vehemently that preference in mining concessions be given to the pioneer instead of to influential syndicates.

He would say: "I don't like to turn capital down; we need it for the development of South Africa. But the old pioneer who has been up in the country for years, who has endured every kind of hardship and carried on alone so long, represents a spirit even more im-

portant to the future of the country than money. I'm in favor of letting him have the concession."

Among these Rhodesian pioneers was an aged Boer hunter named Piet, whom Rhodes had known in the early Kimberley days. Rhodes, Dr. Hans Sauer, and I once made a side trip on horseback especially to see the old fellow. Rhodes characteristically insisted on riding for hours through a blinding storm of locusts to reach the goal he had determined on.

The old hunter, living in a little two-room hut with his wife and three children, was amazed and delighted to see his patron. As there were no chairs available, Rhodes sat down on the bed and they chatted for some time. The family was obviously in considerable want. With his usual generosity, Rhodes wished to relieve their necessity. When they refused his offer of money, he had a happy inspiration: he said he needed some wild animals with which to start a menagerie at Groote Schuur, and finally persuaded Piet to accept the money as advance payment for whatever animals he might capture. Rhodes did actually form a menagerie, and his first specimen was a lion sent by this Boer hunter.

As we were about to leave, Piet pointed to a ragged, none-too-clean, little urchin and said: "Mr. Rhodes, my boy here is your namesake. I've taken the liberty of calling him after you." The little boy, pushed by his father, came forward to shake hands. Rhodes was as embarrassed as the boy and slipped a five-pound note into the little fellow's hand. I whispered to Rhodes that he should take the child on his lap and kiss him. He picked him up gingerly, as one unaccustomed to showing affection, held him for a moment, and then rose to go. Once outside, I glanced slyly at Rhodes; "You've performed a noble deed today!" I remarked facetiously. His dignified silence indicated that he did not think this funny.

I have often noticed that men who are possessed by their ideas do not as a rule have a sense of humor. It was certainly so with Rhodes. Whenever he was obliged to listen to humorous stories, he would do so politely, but always seemed relieved when the ordeal was over.

On this trip we carried with us a large number of blue beads

with which to trade with the natives. However, we found that some "damned Yankee" had been ahead of us and had created such a craze for pink beads that our blue ones were accepted only at a considerable discount. The natives were evidently not so far advanced in currency stabilization as we who boast of a "superior" civilization.

Every evening after supper we sat about our campfire and discussed trivialities as well as world affairs. Lions roared close at hand, and against this menace we kept up a wall of flame, and even occasionally fired off our guns. The conversation naturally returned again and again to lions. Almost every one of the party had personal experiences to relate. One anecdote, that I have often told, I consider better than any told around the campfire.

I once had with me on a trip to Rhodesia a valet named Joseph, fresh from London. At Bulawayo I told my man I should have to leave him there because if I took him farther into the hinterland he would be an encumbrance rather than a help. I said that I should be back on the evening of the fifth day and instructed him to have my bath ready and my dinner clothes laid out, as I was dining at Government House that evening. At the appointed time I returned, and while changing, conversationally asked Joseph what he had been doing during my absence. He informed me that he had been lion hunting.

"The devil you have," I said. "Where did you go?"

"About fifteen miles south of Bulawayo," he answered.

This was a place really infested with lions—and Joseph had never been beyond the sound of Bow Bells.

I asked who had gone with him, and was told that a friend of his, who was valet to one of the officers stationed there, had accompanied him.

"Had your friend ever been lion hunting before?" He had not.

Needless to say, I became extremely interested. "Joseph, you certainly went to the right place. I've been there and it's good lion country. What kind of gun did you use?"

Joseph seemed hesitant but replied honestly, "I didn't think you'd mind, sir," pointing to a shotgun in the corner of the room, "so I took your gun."

"How many lions did you get, Joseph?" I asked immediately.

"We had pretty hard luck, sir. We didn't kill any. We didn't even see a lion."

"Well," I said, "that was hard luck. You didn't even see one?"

"No," replied Joseph.

"What kind of shot were you going to use?"

He showed me some number six bird shot. I could hardly believe my eyes.

"Joseph," I asked, "how'd you ever expect to kill a lion with bird shot?"

"Oh," he replied innocently, "we thought we'd blind the lion with the first barrel, and kill him with the second one."

I decided that Joseph's luck had not deserted him.

Another lion story with an equally happy ending was told me by Major Burnham's brother-in-law, John Blick, who gained fame as an African mining prospector and hunter, and became even more renowned later for his paleontological discoveries in the western part of the United States.

Blick was out hunting one day near Bulawayo. He was on horseback and his two dogs were running beside him. Abruptly, as he rode over the brow of a kopje, he found himself confronted by a lioness. She advanced slowly towards him. There was no possibility of retreating, and Blick shot her.

As he rode on, he heard his dogs making a frightful clamor on the hillside above the trail. They came rolling down, struggling with what looked like two balls of yellow fluff, which he recognized finally as two young lion cubs. In this scuffle they were about evenly matched with his small hunting dogs. With their mother dead, he knew they would starve if he left them. He also knew that their father could not be far away and he was not anxious to meet him. Hurriedly dismounting, he managed to separate the cubs from the dogs; he carried them back to his camp, holding them over his saddle horn.

Blick's cabin was an isolated and lonely place. He fed the cubs assiduously, at first from a baby's bottle. He housebroke them and trained them to his rough, celibate domesticity. As the days passed, the lions became his constant companions and they were invaluable

in frightening off hostile natives. The male cub, of which he was particularly fond, he named "Lobengula"—"Loben" for short.

They accepted Blick as their close friend and for the most part they were as tame as lap dogs. Occasionally when reading by his fire in the evening, he would be startled to see one of them leap clear over his lamp, the entire length of the room, to play with the other. Once when Loben bridged the hunter's knees as he sat in his chair, the man was surprised to see that all four of the lion's paws were on the ground, that the beast stood well over three feet. But Blick kept up his end of the adjustment and the trust continued a mutual one.

Blick began to develop what he thought was rheumatism, and couldn't discover what was giving him such dreadful cramps in the legs. One night he woke to find Loben occupying the entire lower part of his bed, while he had been maneuvered to the head and was lying with his knees drawn up to his chin. He got up and angrily commanded Loben to get off his bed and to lie on the floor. Reluctantly the huge lion obeyed and Blick went back to sleep; but when he woke on the morning, Loben was once more curled on the bottom half of his bed. The gigantic pet had crawled up so quietly and gently that his master hadn't even stirred in his sleep.

One year several friends sent word to Blick that they were trekking up to spend the Christmas holidays with him. Since the party included two ladies, Blick realized he would have to remove his lions from the house. Accordingly he staked them down in the yard and for several weeks before his guests' arrival accustomed them to this new and circumscribed way of life.

His friends were eager to see the domesticated lions. After their initial fright, the women were enchanted. Loben allowed one of them to stroke his great black mane. He and his sister were behaving very nicely and the show was a considerable success. Suddenly one of the ladies deliberately opened a parasol in Loben's face. So quickly came the lion's retaliation that the movements appeared simultaneous. He struck out with one of his powerful paws and it was only the sheerest of good fortune that the woman was not disemboweled. She stood rooted to the spot, shrieking, com-

pletely naked from the waist down. Loben tore the parasol to shreds.

When the woman had been taken into the house out of danger and Loben had been calmed down, the two male visitors came out and insisted that the lion be shot at once. A heated argument followed. Blick was adamant in his defense of Loben. If his guests didn't like his lions, they could get out. The visitors packed up and left immediately and spent a bleak Christmas traveling on the veldt.

A short time afterwards, Blick was called away on imperative business. Since he couldn't very well take his lions along with him and couldn't entrust them to the care of his black boys, who were terrified by them, he was faced with the painful task of disposing of them. Fortunately a friend stopped in on his way to an encampment farther west. This man kindly offered to take them with him. At first Blick couldn't bring himself to relinquish them; only after repeated assurances that they would be given the fondest of care did he give them up. He was genuinely bereaved.

John Blick never lost his interest and love for animals. After he returned to his home in Los Angeles, several years later, he frequently visited the zoo and he saw every circus that came to town. He would walk out to the menagerie early in the morning before anyone else was around and look at the lions, always the lions first.

One day he strolled into the animal tent of a small traveling circus. In a cage marked "MAN-EATING LION FROM AFRICA" a huge, black-maned lion was raging furiously. The keeper turned as Blick approached. "I don't know what's the matter with him," he said. "He's the unhappiest lion I've ever seen. He roars and storms, whenever anybody goes near him."

"I think I can tell you," Blick answered. Before the guard could stop him, he jumped over the ropes and went up to the cage. "Hello, Loben!" The lion turned, tensed his ears, and became still. Blick put his hand through the bars. "Hello, Loben," he called again. The lion ambled over, amiably shook his mane, and stretched comfortably while Blick stroked him. Loben was happy. The friend who he thought had deserted him was here again.

Our campfire conversation often took a serious turn. One evening the tariff was under discussion between Rhodes, Jameson, and

myself. Rhodes had been criticizing America for having levied a heavy duty on diamonds the previous year. His particular grievance was that the De Beers Company had gone to considerable expense in sending an interesting diamond exhibit to the World's Fair at Chicago, and immediately afterwards the Americans had imposed a heavy duty on diamonds. I explained that the United States was not discriminating against the De Beers Company but that the powerful American silver interests had blamed the decline in silver on the English bankers headed by the Rothschilds. Knowing that the Rothschilds were largely interested in the De Beers diamond mines, the silver producers successfully exerted their influence in Congress to have a tariff placed on the De Beers diamonds in reprisal against the Rothschilds.

This led to a discussion of tariffs as an economic policy. Although Rhodes sometimes took the opposite side of an argument to test the soundness of his own views, on this occasion he was in earnest and criticized our American tariff, I thought, intemperately. Provoked by this, I told him that he might be a master of South African politics, but there was apparently much he did not know about the American tariff.

I continued, in what proved to be a prophetic vein: "The tariff is a business proposition entirely. If Great Britain were wise, she would establish a protective tariff. Then she could grant concessions to her colonies and to other nations and in return secure favorable treatment from them through reciprocal tariff arrangements. Indeed, Great Britain could in this way establish an economic empire, binding her dominions, colonies, and dependencies to her by enlightened self-interest, as well as by considerations of sentiment."

Rhodes, who had been brought up under free trade principles, became much excited and lost his temper. I, therefore, ended the discussion by stating firmly: "When you can discuss this matter as one gentleman with another, I shall resume my argument. Your attitude is childish!"

Without saying a word, Rhodes picked up his blankets and moved off about fifty feet from where he, Dr. Jameson, and I had already spread our blankets for the night. Jameson, who, with all his fond-

ness for Rhodes, knew his temperamental weaknesses, smiled at me and said, "He'll get over it."

Awaking early the next morning, I saw Rhodes stretching himself and rubbing his joints ruefully as he rolled out of his blankets. After remarking to Jameson, "He must have had a pretty hard night of it," I strolled over. His stiffness was readily explicable. He had been so preoccupied with his peevishness, that in the darkness he had carelessly spread his blankets over some stones. I tried to re-establish an entente cordiale by sympathizing with him on his uncomfortable bed, but he had very little to say. His ill-humor continued during breakfast. I finally became tired of his dour looks, and when the meal was over, I rose and said: "Since you aren't in a very amiable frame of mind, I'm going out for a ride and a shot at some big game. I'll meet you at the next outspan about lunch time."

On the horse with which Jameson had provided me I spent three or four pleasurable hours riding over the grassy upland. Here and there were herds of animals, sometimes grazing, sometimes running about aimlessly. There were antelope of various kinds in abundance. Swift-footed zebras fled pell-mell at my approach. I found these so interesting that I lost track of the time.

It was nearly noon when I realized that I had wandered far and must be a great distance from the rest of the party. However, I finally succeeded in picking the trail, and after several hours of hard riding reached the place where Rhodes and Jameson were outspanned for the day.

In his anxiety over my prolonged absence Rhodes had completely forgotten his splenetic behavior of the morning. He laid his arm affectionately across my shoulder and said: "Hammond, we've been worried about you. You must know how dangerous it is to go wandering off like that alone on the veldt."

"Oh, well, I had a gun," I replied deprecatingly.

"Yes, but it's very easy to get lost unless you're an expert tracker in this particular kind of country. It's not enough to have a gun with you. Your horse might have broken a leg, and you would have been left alone on foot. You had no food, water, or blankets.

"Let me tell you what happened to me once in my early days, before I was used to the ways of the country. I had a glimpse of

what it might be to be lost on this same veldt. I had strolled away from camp, lured by great herds of game, and found myself miles away with all sense of direction gone. I was lost, completely lost, and overcome by that terror that grips you when you turn, first in one direction, then in another, and finally in a circle and realize that all directions have suddenly become alike. For hours I was hopelessly bewildered. Finally, from sheer exhaustion I sat down and wept. That seemed to clear my brain and, slowly, I began to be able to discern certain remembered landmarks. I might have been lost for good and all. It was only by the rarest good luck that the adventure ended otherwise."

For the rest of the trip we proceeded in amity. We devoted our evening causeries to the subject in hand: the mineral potentialities of the country we were exploring, and their bearing on the working out of various of Rhodes's plans.

Rhodes's greatest dream was always the Cape-to-Cairo Railroad. He knew it was essential for the railroad that coal be located not too far from the proposed line and hoped coal fields might be discovered in Mashonaland. Coal actually was found there not long after. Through the Company, grants of land of one hundred square miles each had been given to Burnham, Ingram, and Colonel Maurice Gifford for exceptional services in the First Matabele War. These could be pegged anywhere north of the Zambesi River, and were to include all minerals.

Realizing the importance of the discovery of coal fields before this idea had dawned on other prospectors, these three men began a search. Burnham received a geological tip from natives, who told him that in their country there were "black rocks" that burned. He rushed Ingram and John and Judd Blick, with a quick-moving outfit, off to the north. This resulted in their pegging ten square miles of land containing enormous coal reserves. Afterwards, this property was consolidated with the Mashonaland Agency. The Wankie Coal Fields, as they are now called, are indispensable to the industrial life of Rhodesia.

On our trip we kept constantly in mind, too, the possible occurrence of other metals, such as iron, copper, and lead. Although we did not find them then, the explorations by Burnham led indirectly

to the development of the great Congo copper fields and shortly afterwards to the exploration and discovery of the copper deposits in Northern Rhodesia, which is rapidly becoming an important factor in the world's copper production.

The discovery of these copper deposits resulted from a remarkable bit of detective work.

Burnham had started to sink a well back of his cabin in Bulawayo. Among the diggers was one of Lobengula's former warriors, whose girl-wife belonged to the Matokas, as indicated by the fact that, according to a tribal custom, her two upper incisors had been removed. The Matokas lived hundreds of miles to the north. Burnham, whose eyes missed few things, noticed that the girl wore a bracelet of "native," or pure, copper. Trade copper, or brass, an alloy of copper and zinc, was common as an ornament, but native copper was extremely rare. Upon being questioned, the warrior said the girl had been captured in a raid into Barotseland undertaken by King Lobengula's men just before the fatal war with the whites, and that he himself had been in the raiding party.

Burnham began to suspect he was on the trail of something important, but unfortunately he could not understand the slave girl's dialect—probably her entire vocabulary did not exceed three hundred words. Interpreters were secured, as a result of which her dialect was translated into Barotse, and that into Mungwate (Bastuto), and that again into Matabele (Zulu), and from Zulu finally into English.

Messages repeated back and forth from interpreter to interpreter through four languages brought out these facts: her country was the same number of days' march beyond the Great River (the Zambezi) as it was from Bulawayo to the Zambezi; that once, when very small, she had seen men in white robes and wearing white cloth on their heads—undoubtedly Arabs—come into her country and trade for the red metal of which her bracelet was made; that this metal came from ingudines, holes in the earth. There were no words in her language, however, to express the size or depth of these holes. Judicious gifts to the warrior and his friends led to many indabas, which brought out a complete history of the great raid made by six thousand of Lobengula's warriors. The girl related how they were

defeated and killed by hundreds, not by the spears of the Barotse, but by smallpox.

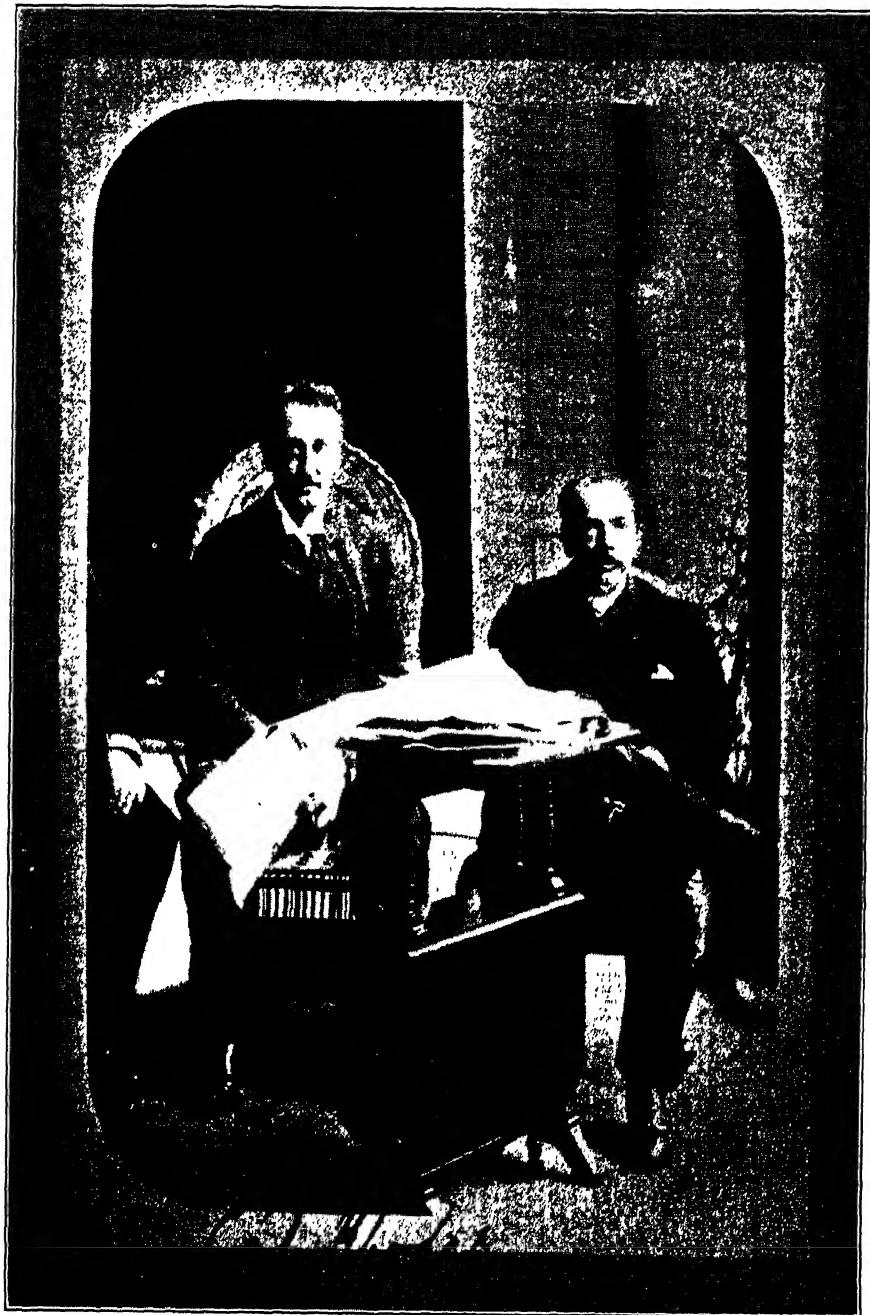
Since hoisting equipment was practically unobtainable, Burnham had decided to sink his well native fashion by passing up the broken rock from man to man to the surface. All the while this talk went on the well was slowly deepening. He had the girl and the interpreters brought to the well, and asked her if this well was like the ingudines in her own country where they found the red metal. She said emphatically, "Yes, some one-man deep; some three, like this."

Burnham began at once to prepare for the long trek to find the red metal. An expedition was financed in London and started from Bulawayo in May, 1895, under his command. Howard U. Moffat, at that time local manager of the already existing Bechuanaland Exploration Company, did everything possible to help. Burnham wisely decided to consolidate his grant with those of Ingram and Gifford and, upon the advice of Rhodes, turned over the whole three hundred square miles to the Bechuanaland Exploration Company.

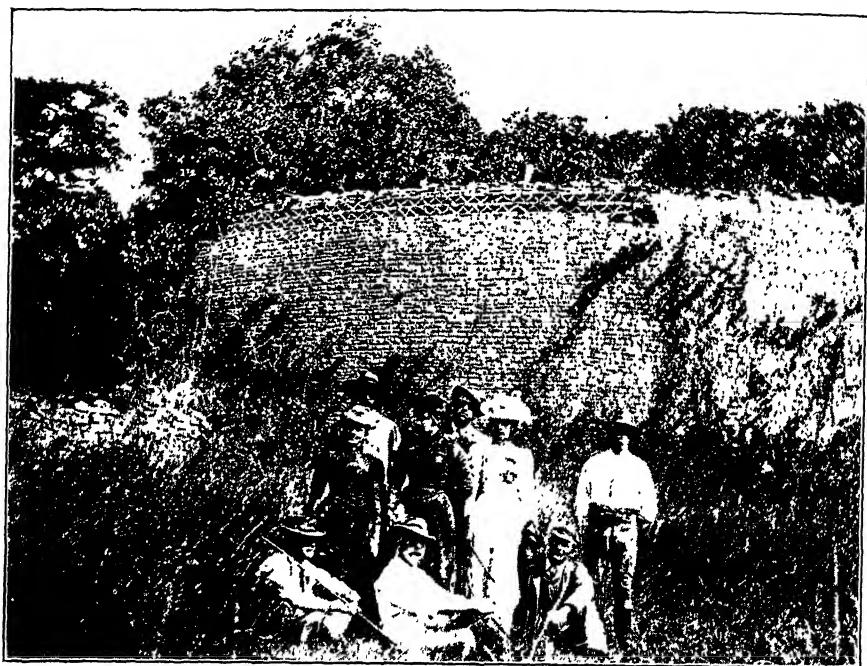
This company was later consolidated with Northern Coppers, and, finally, with the extensive concessions given by the government of Rhodesia and the Congo Free State to Robert Williams and associates.

On its return Burnham's expedition met that of George Grey, brother of the late Viscount Grey, at the Zambesi River; Grey was going north to peg out claims for Robert Williams, then head of the Zambesia Exploring Company. Credit is due Williams for the development of the Katanga district in the Belgian Congo, just north of Rhodesia, under the auspices of the Union Minière du Haut Katanga, of which he is vice-president. Through his perseverance, vision, and courage, this property has become the source from which a large part of the world's future copper supply is being derived. In 1928, Williams was made a baronet in recognition of his services in the development of Central Africa.

Rhodes himself once came near to controlling the copper output of the world. The story has never been told before. The plan of campaign had been tentatively formulated around our campfire,



RHODES AND JAMESON ON THE GARDEN PORCH AT GROOTE SCHUUR



IN FRONT OF THE ZIMBABWE RUINS

and the near-coup scheduled for 1895. At that time both the De Beers diamond mines at Kimberley and the new gold fields on the Rand were producing large dividends. In addition, through Rhodes's association with important investors in England, we could have raised the large capital for our project.

The memorable Secrétan Copper Syndicate, which had aimed at buying up the bulk of the world's stock of copper, cornering the market, and boosting the price, had collapsed ignominiously a few years before. The brilliant but erratic Frenchman, Secrétan, had given me much useful information which I passed on to Rhodes and his associates.

Since these men had established control of the international diamond business through ownership of the diamond mines, this copper project made a strong appeal to them. The Rothschilds, who controlled the Rio Tinto copper mines in Spain and an important copper mine in Mexico, would have entered the syndicate.

My plan was to leave for the United States towards the end of 1895, in the hope of acquiring control of several of the great copper properties there. Unfortunately, the Jameson Raid diverted my attention; after that Rhodes went to Rhodesia to quell the native uprising, and the whole gigantic plan fell through.

To return to the story of our expedition. Scattered throughout the country we were covering we found thousands of excavations made upon gold-bearing quartz veins, aggregating several hundred miles in length. Also, there were the ruins of hundreds of ancient temples and fortresses which stood as the sole monuments of the forgotten people who had worked these mines.

The land was more or less undulating, the general altitude of thirty-four hundred feet making it fairly healthful for white people in its higher parts. Towards the eastern side the mountains tower to a height of ten thousand feet. The development of the country at that time was handicapped by the prevalence of the tsetse fly, the bite of which was fatal to domesticated animals, but not to man. Through the bite of the fly the animal develops a disease known as nagana. We were fortunate, however, in being able to keep away from the district infested by the tsetse fly. We would ask an old

prospector or native how far away the fly was and if told it was only a mile or two we would change our course, and thus avoid it.

It was of supreme importance to Rhodes that my report on the mining prospects of this country be favorable—on my findings would hinge the investment or the noninvestment of enormous sums of British capital for the development of the country. Yet never once during the many days that we rode and drove together did Rhodes embarrass me by asking me to indicate the tenor of my report. After I had examined the nature of the ore deposits, however, I did inform him that Lord Randolph Churchill's engineers had been greatly mistaken in their geological conclusion.

The geology of the country is similar to that of many of the gold-mining sections of the United States; therefore, the gold was chiefly in quartz veins. That is, I found broad bands and patches of metamorphic schists, from five to twenty miles wide, which contained gold veins. At the date of my examination nearly two thousand miles of quartz reefs had been actually pegged out, of which about four hundred miles were estimated to cover ancient workings. The origins of these ancient workings and their history have always seemed to me one of the most exciting things to speculate upon in the whole story of mining. As we traveled through the country, I was reaching my conclusions about this as well as the more technical aspects of the situation.

These excavations were generally several hundred yards in extent and more or less continuous on the surface. The depth attained rarely exceeded a hundred feet; on the average it was about sixty. In order to extract the ore from a vein a large amount of barren rock had to be taken out and piled on either side of the excavation as the vein was followed deeper into the ground. So far as my examination extended, the ancient workings showed no evidence of the use of scientific methods in their exploitation. Indeed, as regards both the mining of the ores and the extraction of the gold from the ore, the methods employed were very crude.

Since the ancient inhabitants of Rhodesia had no knowledge of explosives, their ingenious method of extracting the ore was to build open fires against the face of the veins. When the rock was well heated, they dashed water against it, which caused cracking and dis-

integration. The broken fragments of ore were crushed upon a surface of hard rock in much the same way as the Mexican Indians have always ground their corn upon metates. Then followed the washing of the powdered quartz with water; the lighter particles separated and floated off, and the heavy residual gold was collected and melted.

The molten gold was poured finally into soapstone molds and so converted into bricks or ingots for exportation.

Many of their furnaces, sunk in the solid rock, still remain, some even contain cakes of gold.

As previously stated, the object of my examination was to determine whether it would be worth while to reopen those mines and work them by modern methods. I drew up a complete but naturally conservative report on the mines of the country. After describing the general geology, I referred in particular to the character of the reefs, stating that they belonged to the class of ore deposits known as true fissure veins, and that veins of this character are universally noted for their persistence in depth; but I called attention to the fact that this attribute does not imply the occurrence of pay shoots or bodies of commercial value in their veins. I emphasized this point because I did not wish the investing public to be misled into believing that the reefs of Rhodesia resembled those of the Rand in the remarkable continuity of pay ore; the reefs of the Rand are unique among the ore deposits of the world in this respect.

I furthermore expressed my belief that the abandonment of these mines was not due to the impoverishment of the reefs in depth; as is characteristic of this type of gold reefs in America and elsewhere, such impoverishment in depth does occur far more frequently than on the Rand.

I stated that it would be an anomaly in the history of gold mining if upon the hundreds of miles of mineralized reefs valuable ore shoots should not be uncovered as the result of future work, and that there was substantial grounds to believe that an important mining industry would ultimately be developed.

I concluded my report by stating:

I consider it my professional duty to urge on the investing public the exercise of due discrimination in the

selection of the properties on which money is to be expended in development; and, furthermore, to impress upon mining companies the necessity of establishing the commercial value of the properties before undertaking the erection of plants for the reduction of ores. The majority of disappointments in quartz mining all the world over are attributed to disregard of these preparations. With proper discrimination in the selection of the properties upon which extensive developments are to be carried out, and with due regard to the determination of the appropriate time for the erection of the reduction plant, the mining risks should be no greater than in other quartz mining countries. With these admonitions I confidently commend the country to the attention of mining capitalists. . . .

Upon our return from Rhodesia I submitted my report in my Johannesburg office to Rhodes, Dr. Jameson, and the secretary of the Chartered Company, Dr. Rutherford Harris. After hearing my report, Dr. Harris said, "Well, if we have to depend on Hammond's geological report to raise money for this country, I don't think the outlook is encouraging."

To his criticism Rhodes replied emphatically: "Hammond is absolutely right. He's said everything he's justified in saying and the public will see that it's the report of a conscientious engineer, and give full credit to every word he says. If you don't like his report, you'd better go ahead and sell your Chartered shares."

Shortly afterwards, Rhodes went to London. At a meeting of the shareholders of the British South Africa Company he read my report. There was again some disappointment because the report did not depict a sufficiently roseate future for speculators, and I had not pulled another Witwatersrand out of my hat. Rhodes supported me by saying, "That is the report of a cautious man who visited the country and reported on what he saw."

Moreover, in discussing the report later, Rhodes was scrupulously careful not to exaggerate its favorable features, though others, including Jameson, were less reticent. To judge from the remarks of



the various mining promoters, I must have visited every mine and claim in Rhodesia and reported glowingly on them all. This was a source of unending annoyance to me, however profitable it may have been for the speculators.

On the strength of my report interest was revived in the energetic development of Rhodesia. Eventually sufficient money began to flow in through British syndicates to carry on the work, and with gratifying results.

All through Southern Rhodesia shafts were subsequently sunk upon and through the old workings and some of these mines are now being worked more than a thousand feet below the deepest excavations made by the ancient miners, proving conclusively that it was not because of the pinching out of the veins or the petering out of the ore that the mines had been abandoned.

How, then, is one to explain the cessation of mining on the ancient workings? The explanation may be that insuperable physical difficulties were encountered: the rock became excessively hard as the excavations deepened; seepage of water flooded the workings; or the ore became too rebellious or refractory for treatment by the primitive metallurgy known to the ancients.

It has been suggested that warlike tribes from the North invaded the country and dispersed the gold workers. This might have occurred at a time when political trouble in the mother country withdrew from the industry the necessary protection. In many localities there is considerable evidence that the mines were abandoned suddenly, lending plausibility to this theory. There is, however, unmistakable evidence that the reefs were worked at different periods after their original abandonment: at times by the Arabs, the Portuguese, and even the Mashona, but the attempts were desultory and the operations were merely superficial and conducted on a small scale.

It has been estimated that over one hundred million dollars' worth of gold had been taken from these ancient workings when the white men reopened them. The question that has fascinated me ever since I first saw the Great Zimbabwe is, Who built these massive structures and where did the gold go that these workers extracted?

The walls of the Temple of Zimbabwe are some thirty-five feet

high, of roughly finished blocks of granite laid in even courses without mortar. Separate towers, which must originally have been about the same height as the wall, although the tops are now broken off, were built of solid masonry. Decorative patterns of geometrical design extended around the outer side of the main wall.

In the valley below the temple was an Acropolis, almost impregnably located; it was further fortified by masonry walls and buttresses, and with labyrinthine approaches.

Although no mine workings are found at Zimbabwe, it was undoubtedly the center of the industry, serving as a residence for the directors of mining operations, and also as a collecting place for the gold, which was there smelted and cast into ingots. A great number of gold ornaments, bands, and bangles have been found there.

There are also other ruins, each occupying a central position surrounded by abandoned mine workings. At the ruins of Dhlo-dhlo pottery and ornaments have been found. These outlying forts were probably built to protect the mines from native attack, as it is noticeable that the positions are carefully chosen with a view to defense. At the Mundie ruins there are abandoned iron, as well as gold, workings. Here we found crucibles with cakes of gold still in them.

With the exception of Zimbabwe, there are no temple ruins. Apparently Zimbabwe was also the religious capital.

Hall and Neal, recognized authorities, have divided the ruins into four types: the first and best, then one of an inferior but still sound architecture, a third decadent type, and finally a local native attempt to continue the Zimbabwe style of architecture.

There are two distinct theories as to the builders of this temple. Dr. David Randall-MacIver, in *Mediaeval Rhodesia*, states that the ruins of Zimbabwe date no farther back than the fourteenth or fifteenth century A. D. In this theory he is followed by Miss Caton-Thompson. Both archaeologists assert that the ruins and the abandoned workings are of Bantu origin, the Bantu being one of the numerous negroid tribes of Central and Southern Africa.

The Mashona, who inhabited this region at the time of my visit, are said to have been a militant people. But the conquest of the country by the Matabele not only absolutely shattered their

power but also made slaves of them, and they became a degraded race. Although largely of Bantu blood, the Mashona have a distinctly Semitic cast of countenance. It is an interesting fact that neither the Mashona nor the Matabele have any knowledge of the builders of the forts and temples; they have not even any legends or traditions regarding them. Neither do they inhabit these ruins; they use them as sepulchers for their chiefs.

It seems incredible that any Bantu negro ever reached a point of civilization high enough to warrant assumption that he was the architect and the engineer of Zimbabwe.

With the sole exception of Dr. Randall-MacIver and Miss Caton-Thompson, all authorities on the origin of the ruins in Rhodesia oppose the Bantu theory. Sir H. H. Johnston, who stands first in the knowledge of Bantu ethnology, is firmly convinced that no race of Bantu negroes could have created Zimbabwe without Semitic teachers. Not long ago I wrote to Mr. Howard U. Moffat on this question and received the following reply:

"I too, agree with you, in spite of Miss Caton-Thompson's theory, that the ancient work done in this country and the old ruins which must be connected with the old mines and date from the same period, cannot have been the work of the Bantu people alone. No doubt the mass of labor required for these works was supplied by local natives, probably, almost certainly slaves, but it must have been done under some foreign and superior direction."

This is also the opinion of Theodore Bent, who is recognized *facile princeps* among the authorities who have investigated the subject. His evidence is set forth in *The Ruined Cities of Mashonaland*, which ascribes the Zimbabwe civilization to Sabaean or Phoenician origin.

A. H. Keane, eminent anthropologist, agrees that the ruins are Semitic.

Hall and Neal likewise agree with Bent.

There is naturally wide divergence of opinion as to the period during which these mines were worked. There are no inscriptions to serve as definite, unimpeachable evidence. One of the more recent investigators, Professor Raymond Dart, puts the earliest workings

as from 4000 to 3000 B. C. From this extreme period, estimates range down to comparatively modern times.

Professor J. W. Gregory, of the University of Glasgow, thinks some of the gold recently excavated at Ur came from these mines. The archaeological and religious evidence in favor of dating these ruins far back in antiquity is well summed up by him in his lecture on Ur.

There are signs [he says] of pre-medieval mining in Rhodesia, such as a Roman coin found in a shaft seventy feet deep near Umtali; beads referred to Ptolemaic Egypt and pre-medieval India; the use of ingot moulds of the x-shaped pattern used by the Phoenicians in Cornwall; soapstone birds similar to those used in Assyria and in the gold and turquoise mines of Egypt; a knobbed cylinder compared by Hogarth to one from Cyprus; the Groote Schuur platter with the signs of the zodiac; inscriptions that have been identified as proto-Arabic and Semitic characters.

Innumerable evidences of phallic worship have been found in these ruins. The great number of soapstone birds, pronounced by authorities to be similar to the images of birds found in Arabia, Egypt, Phoenicia and Assyria—birds sacred to the Assyrian Astarte or Venus, and emblems symbolic of the female element in creation, further attest the practice of a cult characteristic of those countries.

There seems to be a substantial basis for the theory that Rhodesian mines were worked by King Solomon, and that it is from this source that he derived his fabulous wealth. The proof necessarily remains circumstantial. To refresh the memory of Bible students I insert the following quotations:

I Kings ix:26. And king Solomon made a navy of ships in Ezion-geber, which is beside Eloth, on the shore of the Red Sea, in the land of Edom.

I Kings ix:27. And Hiram sent in the navy his servants, shipmen that had knowledge of the sea, with the servants of Solomon,

I Kings ix: 28. And they came to Ophir, and fetched from thence gold, four hundred and twenty talents, and brought it to king Solomon.

I Kings x: 22. For the king had at sea a navy of Tharshish with the navy of Hiram: once in three years came the navy of Tharshish, bringing gold, and silver, ivory, and apes, and peacocks.

The Rhodesian mines lie inland about two hundred miles from Sofala, famous as a gold-exporting seaport in the days of King Solomon. From Sofala there is well-marked evidence of an ancient road to the interior through Portuguese East Africa. The forts along this road, of which there are still extensive remains, were almost certainly built to protect the gold carriers on their way in and out. This ancient town of Sofala lies a short distance south of the present important Portuguese port of Beira. Sofala is about twenty-five hundred miles from the lower end of the Red Sea. That distance was not too great to be covered by the Arabian and Phoenician navigators. They carried on trade with many parts of the Mediterranean; developed mines in Spain and reached as far as Cornwall, England, where they mined tin. The voyages along the eastern coast of Africa were facilitated by the monsoons—the trade winds of the Indian Ocean.

From a study of the map it seems obvious that the ships fitted out at Ezion-geber, near the head of the Red Sea, were to be used for trading with India or down the African coast. Asia Minor, Persia, Arabia, Egypt, and even Southern Siberia could have been reached far more conveniently by land.

While there are many gold deposits in Siberia, and some perhaps as yet undeveloped in Mongolia, I saw no evidence of ancient workings when I visited those regions in 1898 to study their mineral resources.

As to Egypt, ancient gold mines did exist, but so far as known they are of insignificant extent compared with those of Rhodesia. Arabia was formerly regarded by many authorities as the site of King Solomon's mines, but there are in that country no gold mines of sufficient size to warrant this assumption, and the building of the

Red Sea fleet would not have been required for trade with Egypt or Arabia as both were more accessible by caravan.

The fact that ships were built by Hiram at Ezion-geber at the head of the Red Sea to transport his gold precludes any suggestion that the source of gold was in the countries bordering the Mediterranean.

The wealth of Croesus was drawn from gold mines near Smyrna; that of Darius came from western Asia Minor. Midas found his gold in the mines of Phrygia south of the Hellespont. The Argonauts' legendary land of the Golden Fleece was probably the alluvial deposits along the rivers of Armenia.

India and the east coast of Africa, then, where ancient workings are known to exist, remain as the only possible sources of the enormous amount of gold brought to the land of the Jews in the reign of Solomon.

The Mysore mines of India were undoubtedly worked in ancient times. There were some mines in Behar, and gold is found in the Himalayas and in Tibet, but in none of those fields is there evidence of extensive ancient workings, certainly none comparable to those of Rhodesia. It is well known that highways across the desert bounding Assyria and Babylon connected these countries with what is now Palestine, and thus with the Mediterranean Sea and Egypt, while the overland routes to India lay across Central Asia. All this tends to prove that the ships at Ezion-geber could not have been used in bringing gold from India or thereabouts.

King Hiram of Tyre brought back from the land of Ophir slaves whom he used in building King Solomon's temple, and, according to the sculpture of the period, those slaves had unmistakably negroid features. For that reason the slaves could not have come from Southern India or from that part of the world where the racial physiognomy was of a very different type.

The conclusive proof, to my mind, is the fact that the culture of the miners of India was of a type entirely distinct from that of the Phoenicians, which is characteristic of the culture of the Rhodesian miners.

My personal research has been confirmed by the works of more competent authorities who have investigated this problem. I have

concluded that these mines are actually the famous mines of King Solomon. As stated before, the proof must necessarily remain circumstantial. My line of reasoning is, in the first place, that there was no other source known at that time where such quantities of gold could have been obtained, and, in the second place, the objects found at Zimbabwe were similar to Phoenician objects used for the same purpose.

The date of the first Phoenician expedition to the land of Ophir was made in the reign of Solomon, about 1000 b.c. From this time to the destruction of the Phoenician and Israelitish fleets at Ezion-geber was about a hundred years. With this defeat, so far as we know, the Phoenician control of the Indian Ocean ended.

When I regarded it as strongly probable that Southern Rhodesia was the land of Ophir of the Bible, I wrote to Rider Haggard and asked him why, in his book, he had located King Solomon's mines within a few miles of where I believed I had seen them. He replied that he had placed the mines in Southern Rhodesia because he felt that its almost inaccessible character would prevent any Yankee mining engineer from penetrating there, and reporting that Haggard's King Solomon mines did not exist. "And thus," he said, "imagination precedes reality."

It may interest the reader to see what has been accomplished by the re-establishment of the mining industry in Rhodesia.

For a long period prior to the advent of the British South Africa Company, Rhodesia was known as a land of constant and murderous tribal warfare. Within a few years the country underwent an extraordinary transformation. Even when I visited it last in 1899, I saw every evidence of the rapid progress that had been made towards civilization.

Rhodesia is now a well-governed country, with a population of fifty thousand whites, four thousand Asiatics, and a native population of over a million. Bulawayo (the Place of Slaughter)—the old kraal of Lobengula—has now a population of twelve thousand Europeans.

In education, the country has also made remarkable strides. There are a hundred and sixty-three schools for Europeans, in which nine thousand European children are provided with education. There

are fifteen hundred schools for native pupils, with a total enrollment of one hundred and ten thousand pupils.

There is a high court composed of a chief justice and two judges, having both criminal and civil jurisdiction. Natives are subject in the main to the same laws as Europeans, though there are special restrictions relating to arms, ammunition, and liquor; and there are laws particularly applicable to natives, such as those dealing with marriage, taxation, and registration. Native commissioners have jurisdiction in civil and criminal matters in which natives only are concerned.

In 1923 the British South Africa Company relinquished to the British government all rights and interests in lands in Southern Rhodesia. The Crown recognizes the Company, however, as the owner of the mineral rights throughout both Southern and Northern Rhodesia.

The country is well adapted for agriculture. The cattle industry is carried on extensively. In 1930 nearly four hundred thousand acres were planted in maize, tobacco, and fodders. Large fruit orchards have been planted and nearly all varieties of fruit thrive. The cultivation of oranges and lemons constitutes a rapidly expanding industry, and much of the citrus fruit is exported to Europe. A thriving business is done in dairy products and poultry. A land and agricultural bank makes loans to settlers on easy terms for repayment for the purpose of improving and developing their agricultural holdings.

Since the reopening of the country, the total output of all minerals is valued at about five hundred million dollars, of which the gold amounted to about three hundred and fifty million. In 1931 the gold output was about twelve million, and the total mineral output, including coal, chrome ore, and asbestos, was over twenty million dollars.

There are a number of minor industries now established in the colony. These include brick and tile works, cigarette and tobacco factories, cold storage and ice-making installations. At the time of my first visit in 1894, there were no facilities for making ice. It was my privilege to donate the first ice-making machine to Bulawayo, and this proved a blessing, especially for use in the hospital. There

are also iron and brass foundries, mineral water factories, electric light and power plants.

The British South Africa Company has a controlling interest in the Rhodesian Railway system, with a total mileage of twenty-seven hundred miles. In connection with the railways of the Union of South Africa, it provides through communications from Cape Town to the Congo border, 2149 miles. In addition to these, a line stretches three hundred miles from Bulawayo via Salisbury to the port of Beira.

A system of road motor services has been organized with a total mileage of sixteen hundred miles. There are two hundred and twelve post offices, forty-seven of which are money order and savings bank offices. The operation of mines, farms, and other industries furnishes employment to a large part of the million natives of Southern Rhodesia.

The transformation of this country is indeed marvelous and a blessing, not only for the whites, but for the natives as well. Here, as elsewhere, British colonizers have faithfully assumed the White Man's Burden.

In his *Life of Jameson*, under the chapter "Round the Camp-fire," Ian Colvin makes the obstetrical observation that "There are many events in the womb of time which will be delivered." He says:

Mr. Hammond came, a messenger of fate laden with the heavy destinies of these two men. He brought portentous news, ominous messages. But neither the messenger who bore them nor the two friends who received them could have felt the burden of fatality as they took their tranquil and leisurely way over the high spacious plains up there as it were on the roof of Africa. There with their wagons on the open veld, with game to shoot and with Tony to cook, under the sun, under the stars, in that up-lifting air, in that new, clean and boundless country, there was laughter, there was keen talk, there were the exhilaration of past success and the inspiration of great projects but no shadow of the impending disaster.

Mr. Hammond furnished Mitchell, the biographer of Rhodes, with an account of this visit, how they rode together and drove together for weeks on end, how his opinion on the minerals of the country was "of the greatest moment to Rhodes, both for political and financial reasons," yet how "during the many days that we rode and drove together there was not the slightest attempt on his part to obtain from me any premature expression as to the value of the country." Such was Rhodes's delicacy of mind; but Mr. Hammond also has his reticence, for he does not mention the one great subject upon which these three certainly *did* talk.

[This is an implication of *suppressio veri* on my part.]

We hear of it, however, from Jameson, who said, long afterwards, to a certain Select Committee: "At the end of 1893, shortly after the conclusion of the Matabele War, I had many conversations with Mr. Rhodes on the subject of the Federation of South Africa, and the obstacles presented to this by the attitude of the South African Republic." And Jameson adds that while they were still discussing this problem, "about the middle of 1894," John Hays Hammond came up to Matabeleland with a very important contribution to the debate. "Unless a radical change was made," Mr. Hammond told them, "there would be a rising of the people of Johannesburg." As a fact he came up to them because by this time it was obvious that there were only two men who mattered.

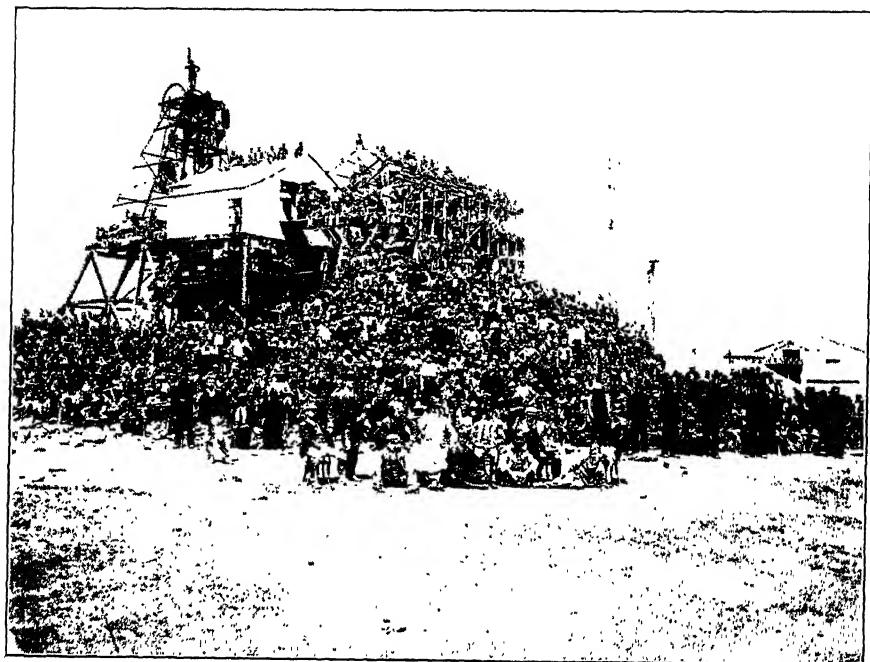
Here, again, we might almost reconstruct the talk not between two this time but between three. The scene, of course, is different, no longer the tin bungalow in Kimberley, but the velvety sky with the Southern Cross hung like a jewel above, a roaring camp-fire, throwing dramatic gleams and shadows strange as their own fates on and around the three figures before it, behind them Tony, the mules, and the wagons, and the stillness beyond broken now and then by the nightmare laugh

of a hyena or the roar of a prowling lion, mockeries and threats from the darkness.

So far as concerns the "portentous news, ominous messages" that I had brought posthaste to Rhodes and Jameson, it certainly would have been presumptuous for me, who had been in Africa not quite a year, to have undertaken to give a true picture of the political conditions in Johannesburg to Rhodes and Jameson, who had been in the country for many years. Moreover, it would have been an unwarranted assumption of authority on my part to speak for the mining investors of the Rand, with whom I had no affiliation except as an engineer and manager of the Consolidated Gold Fields of South Africa—a company controlled by Rhodes.

The implication in Colvin's account of my trip with Rhodes and Jameson to Mashonaland is that the prime object, if not the ulterior motive, of the journey was to discuss with them the political conditions on the Rand. As a matter of fact, Rhodes was at the time far more concerned with the kind of report I was to make as to the potential mining value of that region, and I was there solely for that purpose. It is quite true that I spoke of grievances of the Uitlander population, and admittedly must have said that had the mining population of the Rand been of the more turbulent character of the western mining districts of America, there would long since have been a serious outbreak against the Boer government. This was undoubtedly true, and I very likely did make the statement attributed to me: "Unless a radical change was made there would be a rising of the people of Johannesburg." This was my opinion at the time and there was no reason why I should have hesitated to express it. I, of course, intimated that my sympathy lay with the Uitlanders. This I subsequently showed by my participation as one of the leaders of the Reform Movement which was doomed to defeat by Jameson's Caesarean operation "upon the womb of time." Yet to assign to me the function of accoucheur in the birth of the movement, for reform, as represented by Colvin, is obviously absurd.

I have discussed "Round the Camp-fire" at length because other authors have, without further substantiation, assumed the correctness of Colvin's theory of the origin of the Jameson Raid.



A SOUTH AFRICAN MINE



KAFFIR MINERS

CHAPTER SIXTEEN

Deep-level Mining

A REVOLUTIONARY DECISION—TWO CABLES TAKE A MONTH—OPEN SELLING AND SECRET BUYING—ACQUIRING THE DEEP-LEVEL AREAS ON THE RAND—PARABOLIC CURVES VERSUS THE METHOD OF TRIANGULATION—THE PROJECT IS REGARDED WITH SKEPTICISM—CONVINCING THE BROKERS AND THE PUBLIC—THE ROBINSON DEEP ARRIVES ON SCHEDULE—ADVANTAGES AND OBSTACLES OF DEEP-LEVEL MINING—ASSURING AN ADEQUATE SUPPLY OF KAFFIRS—KRUGER STANDS IN THE PATH OF EMPIRE

ays of traveling together, with its pleasant companionship, brought about a close bond of friendship between Rhodes and myself. This inevitably gave me many opportunities to discuss subjects of communal interest. As the result of this intimate association my admiration for Rhodes was greatly increased, as was his confidence in me.

As we sat around our campfire one starlit evening on our trip through Mashonaland, interrupted only by the roar of distant lions, Rhodes asked me my opinion as to the future of the Rand. He wanted to know what would be the life of the mines.

I told him that geologically there was no reason why the Rand should not last many years; that from an engineering point of view mining could be successfully carried on to a depth of several thou-

sand feet, surely upwards of five thousand feet vertically. The lowest workings of the outcrop companies at that time had reached only five hundred feet vertically. I made some drawings explaining the geology of the Rand formation and the reasons determining my views as to the continuity in depth of the ore-bearing formation. I gave him some figures on the yield per acre of the outcrop companies and the resulting profits from operations. I told him that I believed properties on the dip up to several thousand feet in vertical depth could be operated at a cost but little exceeding that of the outcrop areas; and I satisfied him that large profits could be made by acquiring the land (which subsequently became known as the deep-level areas), sinking the vertical shafts to strike the ore-bearing formation and mining and milling according to the methods of the outcrop companies but upon a larger scale of operations.

"Why would it not be good business," Rhodes asked, "to sell our holdings in the outcrop companies; buy all the available deep-level areas for several miles along the strike of the outcrop reefs and start deep-level mining, using the money we get from the sale of our outcrop companies holdings for that purpose?"

"That's exactly my idea. In fact," I added, "I had recommended it to Barnato, but he was too much engaged in other affairs to give it serious consideration and that is one of the reasons why I severed my connection with the Barnato firm."

"You are sure, are you, Hammond, that your geology is sound on this deep-level theory of yours?"

Without a moment's hesitation I replied, "I'll stake my reputation on it."

"Let's send a cablegram to London at once!" Rhodes exclaimed. Together we composed a cablegram to the Consolidated Gold Fields Directors in London, of which Rhodes was the controlling factor. And about two o'clock in the morning, my secretary—the Honorable Eustace Fiennes—a fearless adventurer, a D.S.O. man, who in later years became governor-general of the Leeward Islands—started with two natives on a five hundred mile ride across dangerous country to the nearest telegraph station at Mafeking with the cable, signed by Rhodes, which was in substance as follows:

HAVE DECIDED BEST POLICY FOR COMPANY WOULD BE SELL
OUT OUR ENTIRE HOLDINGS IN OUTCROP COMPANIES DO THIS
AT ONCE HAMMOND APPROVES CABLE REPLY

It took a month for our messenger to cover the journey, receive the reply, and rejoin us near the Zambezi, a total ride of over a thousand miles. And this was the directors' reply:

WE DO NOT UNDERSTAND YOUR CABLEGRAM DO YOU WISH
US TO LIQUIDATE COMPANY THIS CANNOT BE DONE WITH-
OUT FULL EXPLANATION TO DIRECTORS

Rhodes was furious. He was not in the habit of having his explicit instructions disobeyed. He sent another cablegram:

DO EXACTLY AS I INSTRUCTED YOU TO DO AT ONCE WITH-
OUT ASKING QUESTIONS I TAKE FULL RESPONSIBILITY C.J.R.

This time the London directors obeyed. When we got back to Johannesburg several million dollars' worth of shares had been turned into cash at high prices, the Kaffir market then being at the peak of a boom.

Just as Rhodes was ready to leave Johannesburg for London to submit my report on Mashonaland and Matabeleland to the British South Africa Company shareholders, he asked, "Hammond, what are you going to do about acquiring the ground for our new deep-level enterprise?" I replied that I had certain plans which, of course, would have to be kept secret. We then discussed them; he approved and told me to go ahead.

Rhodes's notes to me were often pithy. In the little black notebook that I always carried with me I find the following. It refers, of course, to the deep-level mines and, although it may seem cryptic to the average reader, I quote it because it illustrates a certain dryness in his humor and a liking for epigrammatic philosophies undoubtedly springing from his admiration for Marcus Aurelius.

"Do not buy deeps with poor parents. Drunkards' children are no good. Go always into good things, not doubtful ones unless they cost you nothing. Remember poor ground costs just as much to

work as rich ground, the only difference is the first cost. My idea is you should gradually as you can get out of your doubtful holdings and companies you do not control, and consolidate in those of which you have the control, or see a chance to work by getting the control. My idea of B—— is that he is an honest man but no head or judgment. If he wants to go throw no obstacle in his way. The same article in America worth perhaps 20 shillings per diem."

Rhodes's reference to "buy deeps with good parents" was to purchase ground underlying or adjacent to areas of proved value. This shows his excellent judgment in the advice he gave to me.

Some of the London financial papers criticized my not having been present when Rhodes submitted my report. They did not know I had remained in Johannesburg to attend to the details of the deep-level project. My plan was to secure large tracts of land adjoining those of the producing outcrop companies. Much of this deep-level area was regarded as of no prospective value for mining; nor was it of much use for agriculture. Some small farms had, however, been purchased at a low price by the outcrop companies and by individuals and syndicates. These were being held for possible development in the remote future, as it would not pay to sink deep shafts as pure speculation.

The owners of these properties did not realize there was an immediate possibility of their being worked as mines, and it was part of my task to see that secrecy was maintained. Had even a whisper of our intentions been spread abroad, the price would have gone rocketing. Working independently through several brokers pledged to silence, I was able to secure most of the desirable land on favorable terms. There remained, however, certain properties essential for carrying out the proposed scheme which could not be secured by purchase.

As soon as the individuals and syndicates mentioned above ascertained that Rhodes was behind the project, they insisted on having stock in the new enterprise instead of cash. To meet their demands I held a meeting of all persons concerned. I proposed that each be allocated a certain interest in the consolidated plan according to a percentage I had previously worked out with my engineers. The appraisal was based on, first, the distance of the properties from the

outcrops of the gold-bearing reefs, second, the depth of the reefs below ground, and third, special technical considerations.

The appraisal was fair, even generous. Although I knew I would have little difficulty in securing the consent of most of the property holders in their respective allotments, I apprehended some delay in settling with H. J. King for his quota. King was a prominent mining investor who had acquired considerable reputation as a "mining man" in the early days of the Rand because of a trip he had made some years before through the western mining districts of America. There he had acquired a fluent though superficial familiarity with mining terminology. King rather prided himself on his knowledge of mining, and the mere fact that he was an American favored his pretensions. Everyone else at the meeting had agreed to the terms, but, as a matter of business habit, King objected to the amount of stock I had allocated to him.

"I suppose you've figured out the relative importance of the holdings in the Consolidated Company by the usual process of triangulation," said King.

I replied: "No, Mr. King, as a matter of fact I did not. I'm glad, however, you asked the question. The triangulation process is obsolete. I've worked it out by parabolic curves, which, as you know, is too technical to be understood by anyone not thoroughly familiar with mining." Then I added, "Of course, Mr. King, as a mining man you must admit that the accuracy of the parabolic curve method cannot be disputed."

Admitting that results computed by this new formula must be beyond cavil, he attached his signature to the agreement without further argument.

A few days later, I encountered King. When we were alone, he asked me somewhat diffidently, "By the way, Hammond, since everything is closed up now, what is that system of parabolic curves?"

"As a matter of fact, King," I said, "that is just something I invented to overcome the unjustifiable objections of a recalcitrant negotiator!"

Twenty years later King was my dinner host in London and told this story on himself. By that time he had become a mining magnate and had outgrown his reputation as a mining expert.

296 The Autobiography of John Hays Hammond

After this large area had been acquired, it was subdivided for deep-level companies, based on economic and engineering considerations. After the acquisition of the deep-level properties large sums were required for shaft sinking and development of the mines and erection of mills to treat the ore, amounting to several million dollars for each property. Therefore, it was necessary to take immediate steps to get the large capital required. The financial groups operating the outcrop companies not unnaturally objected to the large sums of money being diverted from speculation in their shares. Also, the majority of them quite honestly believed that the deep-level project was not feasible. With the exception of my own engineers and a very few others, the Rand in general regarded the whole plan as visionary.

I was not only disappointed in the failure of the mining groups to co-operate, but was hindered by their direct opposition to the project. Immediately on Rhodes's return from London, I went to Cape Town to see him. I told him I had expected positive co-operation from the Eckstein group, representatives of Wernher, Beit and Company, but instead, their engineers were expressing much adverse criticism of our plans. Rhodes thought opposition from this quarter so serious that he advised me to take the first steamer to London to see Alfred Beit, who was one of the controlling factors in Wernher, Beit and Company. This I did.

Alfred Beit was the same age as Rhodes and, like him, unmarried. He had been Rhodes's devoted and intimate friend since the time when, with Barnato, they had formed the De Beers diamond trust. His imaginative and daring nature had often been fired to tangible response by Rhodes's glowing enthusiasm for the advancement of Africa. For example, Beit had been prodigal in support of the Chartered Company. Courageous as he was, however, his actions were usually tempered with forethought and wisdom. Jameson died a poor man; Sir Alfred Beit, as he later became for his philanthropies, amassed one of the great fortunes of the world.

Almost my first action on reaching London was to call on Beit. It was late in the morning and he suggested that we drive to the Savoy for luncheon. I plunged into the subject immediately and asked Beit outright just what his objections were to the deep-level

scheme. He repeated the arguments of his engineers in Johannesburg. I had a conclusive answer ready for each. Just before we arrived at the Savoy, which took us about twenty minutes, I asked whether he still considered his objections valid.

He frankly replied, "I am now inclined to agree with your views."

Before the luncheon was over he was not only entirely converted, but committed financially to the enterprise as well.

While I was in London, I followed out Rhodes's request to call on Lord Rothschild, whom I had met several years before. I reminded him that at our first meeting he had asked me to let him know when I should acquire any good mining property. I now told him about the deep-level scheme, which I said certainly ought to interest him.

Lord Rothschild seemed more or less surprised, and remarked: "You know, Mr. Hammond, that's a coincidence. Curiously enough, on the recommendation of my chief mining expert, Hamilton Smith, I've just sold out my interest in that project."

"Yes, of course," I replied. "I know that. As a matter of fact, Mr. Rhodes's syndicate has purchased your interest. He'd like, however, to give you a chance to come in again and I've come here to see whether or not you care to change your mind about it."

I went over one by one the arguments I had used on Beit until Lord Rothschild was convinced he had made a mistake in selling and, much to my satisfaction, agreed to buy in again.

As I look back, it seems almost inconceivable that there should have been such a lack of faith in the deep-level enterprise. The particular objection which seemed insuperable to both engineers and investors was their belief that it was impossible to sink shafts and mine ore profitably at the great depths contemplated in many of the deep-level projects.

The history of the great Comstock Lode in Nevada was cited as a case in point. My opponents stated that the heat encountered at a depth of thirty-five hundred feet had compelled the abandonment of the mine. Again and again I had to explain the fact that the Comstock was situated in a district of recent solfataric action; that many hot springs had been tapped long before any real depth was reached, and that consequently at only a short distance below the surface the heat became intense. On the other hand, I believed that

this geothermal gradient, as it is called, would be found exceptionally low on the Rand. This eventually proved to be true. The increase in temperature has not been more than five degrees for every thousand feet of depth.

I knew that if I was to convince hardened skeptics I must have concrete facts with which to back up my theory. Therefore, I made a special trip to Příbram, one of the famous silver-lead mining districts in Bohemia (now Czechoslovakia) which had been worked for several hundred years. I returned from Příbram to London just in time to deliver an address in Cannon Street Hall on deep-level mining, to a group of moneyed men interested in mining. In order to get a dramatic effect, I said: "Will someone please open a window! I find it very stuffy here compared with the cool temperature I found at the bottom of the mine in Příbram, thirty-six hundred feet down." I said further that, while it was true it had taken a hundred years or more to sink the shafts at Příbram, I felt sure that by using modern methods of shaft sinking, we could reach as great a depth in South Africa in not more than five years.

It was essential to secure the support of the stockholders dealing in the Kaffir market. After many meetings with the heads of these firms I devised a plan which helped materially to convince mining investors of the attractiveness of deep-level shares. I made diagrams which indicated clearly the number of claims being mined on the outcrop areas. I showed that the yield per claim averaged two hundred and fifty thousand dollars, with a profit of about ninety thousand dollars.

On the same diagrams, immediately below the skeleton drawings of outcrop companies, I outlined on a proportionate scale the deep-level companies. In size the latter were eight or ten times as large as the former. The diagram not only included the estimates I had made of the cost to sink shafts to reach the reefs, but also showed the time required and the comparatively enhanced costs of mining upon the deep-level areas. These diagrams were then hung with my compliments in the offices of stockbrokers dealing in South African shares.

In fact, I developed into what would now be regarded a high-pressure salesman and as my confidence—perhaps I ought to say

temerity—increased I was emboldened to assert that within a few years the cost of deep-level mining would not exceed that of the outcrop companies owing to better equipment, more efficient methods, and cheaper dynamite, coal, and other mining supplies. These predictions have been fully realized; at present mining is actually carried on at a depth of eighty-five hundred feet at a cost less than that of the outcrop properties in 1894.

During 1897 I spent considerable time in Paris trying to secure the financial co-operation of French capital for the further development of the South African deep-level mines. South African mining shares were then extensively dealt in on the Paris Bourse. I frankly told the French financiers that they were making the mistake of being followers, instead of leaders, in mining enterprises. I showed them how they had been taking a lot of skimmed milk from British mine promoters after the cream of the profits had already been removed. I pointed out to them that they now had an unusual opportunity to get some cream. By dint of hard work I finally established an important clientele in Paris, who invested in the deep levels.

Twenty-five years later one of the secretaries of the American Embassy in Paris started to introduce me to President Doumergue, when the president interrupted. "Why, Mr. Hammond doesn't need any introduction to me." He then informed me that he was present when I delivered one of my addresses in Paris in 1897. Acting on my recommendation, he had made money by investing in the deep-level mines of the Rand.

As soon as sufficient capital was available, we started sinking shafts in the deep-level areas. To prevent loss of time, we decided to start at once the erection of the stamp mills and appurtenant plants where the ore was to be treated. Each of these mills, the largest of their type at the time, cost several hundred thousand dollars. We had to incur the expenditure of many millions of dollars in the development of the deep-level properties before we recovered an ounce of gold. It was, therefore, most important to sink our shafts with the greatest possible speed so that the stockholders could have quicker returns on their investments, and the time element obviously was the "essence of the contract."

When we started sinking shafts, we found we could get down

only about seventy or eighty feet a month. This was not fast enough. I sent one of my assistants to the United States to bring back the best shaft sinkers he could find, regardless of wages. He combed the Comstock district of Nevada, where shafts had been sunk to a depth of thirty-four hundred feet, and also the Lake Superior district, where an even greater depth had been attained. He proudly returned with a hand-picked crew.

Although these expert shaft sinkers did speed up operations considerably and were making records, their achievement fell short of my desire.

When I had exhausted the capacity of the practical shaft sinkers, I sent for Leslie Simpson, a young man on my staff who had recently graduated from the University of California. I told him that I intended to put him in charge of the sinking of our deep shafts. Modestly he said, "I have never had any experience in shaft sinking."

"It is for that very reason I want you," I replied, "as you have no preconceived ideas. You are not bound by traditions or established rules. My paramount object is speed regardless of cost. I want you to spend a month or more in ascertaining the amount of time consumed in the different operations of shaft sinking and to eliminate every possible loss of time."

It was a question of combining clear thinking with hard work. Fortunately Simpson possessed a good supply of brains and unbounded willingness to work. He started and soon established world records. We offered a monthly monetary prize to the crew that would set a new goal and this spurred them to extraordinary efforts.

One of the first of these mines we developed was the Robinson Deep. I had estimated that we would strike the reef on a certain date at about eighteen hundred feet. We did strike it within a few feet of that depth and within a few days of the time I had set.

Deep-level mining received a great impetus from this "remarkable" guess while I gained an unearned reputation as a prophet, which caused me considerable embarrassment in meeting my confreres. I had to disclaim any responsibility for the extravagant statements of those who were not so careful in promoting my reputation as they were overzealous in disposing of deep-level mining shares.

As a matter of fact, the record does justify my prophecy as to deep-

level mining. In reviewing the yield of gold obtained from the Robinson Deep during the past thirty-two years, I find that about eight million fine ounces have been produced, valued at about a hundred and sixty million dollars, from which dividends of approximately a million dollars a year have been paid. The incentive to deep-level mining which was furnished by the success of the Robinson Deep is obvious. Other deep-level mines of the Rand have likewise produced many millions of dollars in gold. If it had not been for this type of mining, the gold output of the Rand would have already fallen off greatly.

A large part of the world's gold production in recent years has come from the deep-level mines. The Robinson Deep is now operating profitably at a vertical depth of about a mile and a half (8500 feet) or a distance of three miles following the dip of the ore bodies. It is probably the deepest mine on record, though both the Morro Velho gold mine of Brazil, which has been worked for a century, and the Champion Reef Mine at Mysore, India, have reached almost an equal depth.

Operations at such a depth are becoming costly. How much deeper mining will ultimately be carried is a matter of conjecture; it will depend chiefly on whether the grade of ore justifies the inevitable increase in cost. At present certain factors are decisive in determining how deep mining shafts may be driven.

One important obstacle is the tremendous pressure of the superincumbent ground. Just as in the case of fluids, the tendency for the rock at the bottom is to fill in the excavations. This phenomenon causes frequent accidents. The cost of supporting the ground is great; indeed, it exceeds the present cost of ventilation. In the workings of the deep levels the miners have gone so far into the earth that they toil in temperatures of between 100° and 120° Fahrenheit with a relative humidity of from 90 to 100 per cent. This causes many fatal cases of heatstroke. The excessive humidity arises partly from water seepage into the mine shafts and workings. It is partly due also to the mandatory wetting down of the mine walls following every blasting or drilling operation which must be done in order to prevent silicosis, which would cause many deaths among the miners.

The Robinson Deep is now installing the greatest air-conditioning plant in the world (the Carrier system) to overcome these obstacles. The cages which carry the miners down to the workings move at a speed of two thousand feet per minute, or twice as fast as the express elevators in New York's tallest skyscraper.

That my prognostications were not entirely baseless is shown by the following appreciative article which appeared in *South Africa*, April 8, 1899:

Turning to Mr. Hammond's experimental researches on the Witwatersrand, it may be said that his greatest and most lasting work there has been accomplished in connection with the deep levels. Mr. Hammond was one of the first to declare his unqualified belief in them as payable propositions. He urged all along that they presented no serious engineering difficulties.

It was here that his American experience came to his aid. He knew that in America miners thought nothing of working at a depth of five thousand feet. Of course, everything in Cousin Jonathan's country is arranged on a scale calculated to "lick creation." Its trees, its mountains, its houses, and its stories—especially its stories—are all exceedingly tall. By analogy, then, one would expect its mines to be abnormally deep.

But, although Mr. Hammond is a patriot, and therefore partial to things American, he has a frank admiration for John Bull, who in spite of his natural limitations, has managed to put in a good deal of "tall" work in the way of empire-building. Mr. Hammond has, therefore, never doubted that with British capital and British labour deep level mining would prove as successful on the Rand as it has done in America. Mr. Hammond, like Mr. Rhodes, believes in laying the foundations of empire deep as well as broad. If he makes them firm and sure at a depth of five thousand feet, that will be quite enough for the next few generations to build upon.

It is now four years ago since Mr. Hammond declared that investors and speculators had no cause to fear over-inflation in the prices of deep levels, which would ultimately reach much higher figures than those then ruling. Such an opinion, expressed by an expert who was notoriously conservative in his estimates and well-nigh insusceptible of enthusiasm, was worth a good deal, and we know now how thoroughly justified it was.

Fortunately, there were no difficult problems in the extraction and metallurgy of the ore. The gold ores of the Rand, with an average value of ten dollars per ton, are what are called free-milling; sixty per cent of the gold contents are obtained by simple amalgamation processes. The remainder contained in the pyrites associated with the gold passes into settling tanks, from which the gold contents is leached by cyanide solutions. The MacArthur-Forrest cyanide process had just been invented at the commencement of mining operations on the Rand. It was notably through the skill of Charles A. Butters, of California, and Dr. A. von Gernet, a Russian metallurgist, that this process was perfected and came into commercial use.

It was of great economic advantage to the Rand mining industry that, compared with other mining districts, but little lumber was required for timbering operations. Timber in South Africa was scarce and expensive; it had to be imported, principally from America and Australia. Almost no timber is used in the deep mines to prevent caving. Tailings, or refuse from the crushed rock, are lowered into the workings and used as filling. These may be supplemented by waste rock or reinforced by concrete pillars.

The conglomerate reefs, as they are called, flatten considerably as they approach the bottom of the syncline, or basin. These bankets are remarkably persistent, though their continuity is often interrupted. Certain sections are much richer than others. The grade of the ore has, however, been surprisingly well maintained in depth. Although the mill records at times show an apparent depreciation of the gold content of the reef, this feature is often to be ascribed to the fact that working on a large scale has made it profitable to mine

and mill ores of a grade that otherwise would be left in the mine.

One of the difficult problems of the mining companies on the Rand was to secure adequate labor. Although there was always sufficient white skilled labor, there has been usually an inadequate supply of Kaffirs for both surface work and mining.

In 1898 there were employed upon the Rand 9746 whites and 88,627 Kaffirs. Today the gold mines of the Transvaal employ about 216,000 natives and 30,000 whites. The Kaffirs were largely Basuto, Zulu, Shangani, and Zambesi boys. Like house servants in China, regardless of their age these Kaffirs are called "boys." Some of these Kaffirs were recruited many hundreds of miles away. Since many came from the low "hot countries," they suffered greatly when they reached the colder altitudes of the Rand. Hundreds died on their march to Johannesburg, from pneumonia and other causes. When the boys finally arrived, always in an emaciated state, they had to be placed in the company's compound and conditioned for a month or more before they were fit to work.

Furthermore, they were of little practical use until they had learned the mechanics of mining, which required at least several months of experience. After remaining at the mines for one, two, or three years, many of them became proficient. They received an average monthly wage of about ten dollars in addition to their board and lodging. The thrifty ones soon acquired a competence. These returned to their homes with sufficient money to purchase cattle, and with these, in turn, they bought healthy wives. This enabled them to join the idle rich and to live off the labor of their help-mates, who tended the cattle and cultivated the fields.

In order to ensure a permanent supply of efficient miners, I suggested to Rhodes that we establish native villages near the mines, where boys could live with their wives and families. The mining companies were to provide them with huts and small farms on which to raise chickens, hogs, cattle, and vegetables to help support themselves.

I also thought it a good plan to attempt the civilizing of the wives so that their increasing wants would impose upon their husbands the necessity of continuous work, paralleling in that respect the duty of husbands in civilized communities. This scheme never met

with the approval of the mine owners and has not been carried out.

The plan I suggested to Rhodes would have been advantageous as it would have ensured the expenditure of the wages in the country. Later when labor supply became insufficient an unsuccessful attempt was made to employ Chinese coolies.

As laborers, the Kaffirs are not only tractable, they are a fun-loving lot. They have a strong sense of justice. In our competition to secure labor we employed two brothers as compound managers. They were colonial-born, descended from a well-known English family, and spoke several of the Kaffir languages perfectly. The natives were much attached to these two, whom they called in their language The Just.

It was frequently necessary to resort to flogging to maintain order among the boys in the compounds. Afterwards the natives would come to the managers and thank them, as a dog crawls to lick the hand of its master after a deserved whipping. Because of this reputation of our compound managers for fair dealing, our companies had an advantage over others; boys coming a distance of several hundred miles would voluntarily apply for jobs with us.

Our difficulties were greatly aggravated by the incessant drunkenness of our Kaffir workmen. This was due to the right of the liquor monopoly granted by Kruger to certain of his friends. This liquor syndicate had the sole privilege to sell "Cape Smoke," a particularly pernicious form of alcohol. They could sell the liquor even within our compound. The boys often reported for work in a shockingly intoxicated condition, sometimes so helpless that they fell from the cages and were horribly mangled and killed.

We were also compelled, for the sake of filling the pockets of Kruger and his friends, to purchase our dynamite from a firm to which he had granted a monopoly. The price was excessive, but far worse than that was the fact that the quality was so poor that premature explosions were frequent and, consequently, many fatalities occurred.

Our protests to Kruger against both these outrages were consistently ignored and for this reason we held him directly responsible for the many unnecessary deaths.

Kruger realized that there would be an important mining develop-

306 The Autobiography of John Hays Hammond

ment in Rhodesia following my favorable report. Coincidentally came my equally favorable report on the deep-level enterprise, which would largely expand the mining industry of the Rand. This he knew would result in the influx of many thousands of the British he so ardently detested, and who would inevitably constitute a menace to the Boer oligarchy. These conditions not unnaturally created on Kruger's part a genuine and, under the circumstances, a not unreasonable apprehension for the safety of his regime.

Cecil Rhodes, from the time of his first arrival in Africa, had attempted to extend the borders of British territory. He had been successful to a certain degree. Kruger's object now was to frustrate this ambition of Rhodes by enlarging the territory of the Transvaal. Through force of circumstances, these two dominant personalities were about to engage in a warfare as bitter as it was inevitable. Across the Orange and Vaal rivers Kruger's oxcarts stood square in the path of Rhodes's advance towards his "North."

CHAPTER SEVENTEEN

The Reform Movement

WHICH RIDER IN THE SADDLE?—A PICTURE OF OOM PAUL—DR. LEYDS AS AN EVIL GENIUS—THE UITLANDERS ARE INVITED TO THE TRANSVAAL—THE GRIEVANCES—THE BROWN CASE—CLOSING THE DRIFTS—WE PLAN TO REVOLT—MUSTERING FORCES ON THE BORDER—A LETTER TO JAMESON—GUNRUNNING—EARTHQUAKE WEATHER

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he most dramatic and critical period of my life was ushered in by the autumn of 1895. Two years had passed since my arrival in South Africa. Six months of that time I had spent with Barnato, two months on the trip to Mashonaland with Rhodes. In addition, I had made a visit to London and had been to Groote Schuur for an occasional conference with Rhodes. The major part of my attention, however, had been directed towards the management of the Consolidated Gold Fields Company, and I was particularly concerned with the technical details of the new deep-level mines.

Little of my time had been devoted to politics. I had listened to the discussions going on about me and had quickly become cognizant of the Uitlander grievances—they were the inevitable topic of conversation at every dinner table. I was sympathetic, of course, but not actively interested.

On many occasions I did go so far as to say that the law-abiding miners from England were enduring ill-treatment from Kruger's

government that the men I had known out West in America would never have tolerated.

Only when the Boer policy directly affected the running of the mines under my management was I forced into political opposition. It became gradually obvious to me that if the Boer policy were not radically changed a conflict was inevitable.

About this time General "Slim" (Sly) Piet Joubert, later commander of the Transvaal forces in the Boer War, put the problem to me nicely.

"There are two riders but only one horse in the Transvaal," he said. "The question is, which rider is going to sit in front—the Uitlander or the Boer?"

"General," I replied, "we Uitlanders are paying nine-tenths of the cost of the horse and nine-tenths of his upkeep as well. I think we ought to be in the saddle."

Joubert shook his head gloomily and turned away. As the leader of the liberal party among the Boers, he meant well towards the Uitlanders, but his sympathies were not strong enough to carry him to the point of acting directly against the Kruger faction. Nevertheless, he had summed up the situation concisely: two opposite ideals were confronting each other.

Before the Jameson Raid the Boers were by no means united behind Kruger. From many talks I gained the impression that the younger Boers, at least, thought reform essential. Deputations of prominent young Boers had on various occasions warned Kruger that their understanding of the justice of the Uitlander position was such that they could take no active part in any trouble that might come up in Johannesburg.

In the liberal party, led by General Joubert, were Louis Botha and many others who attained political distinction during and after the Boer War. There was little love lost between the Kruger and Joubert parties; indeed, the controversies sometimes waxed intense.

Many of the Boers themselves alleged that, at the presidential election of 1888, Joubert had lost the presidency only because of Kruger's lavish and unscrupulous use of the state's money at the polls. Moreover, Kruger's illegal ousting of Joubert supporters from the Volksraad was common knowledge.

The Joubert faction did not agree with Kruger's conviction that the Uitlander was fit only for plundering. Chief Justice Kotzé, himself a nonpartisan, told the burghers in October, 1894, that "No one . . . will deny that the country is at present in a very critical position. . . . It depends entirely upon the people whether the impending change is to take place peaceably or to be accompanied by violence."

The Boer liberals (as well as the Uitlanders) had definite grievances. They vigorously objected to the swarms of Hollanders and Germans who were pouring into the country and filling the lucrative offices. Governmental expenditures had been augmented from about \$750,000 in 1886 to upwards of \$18,500,000 in 1896. The salaries paid in 1896 amounted to about \$150 per head per annum for the total male Boer population. In defense of their position, the Kruger followers ascribed the protests of their political opponents to the younger and more liberal Boers' exclusion from these perquisites of office.

Additional bitterness among the anti-Kruger Boers was engendered by the granting of monopolies to Hollanders and Germans. Most influential of these foreign spoilsman was the Java-born Dutchman, Dr. W. J. Leyds (Leijds), who ultimately became state secretary and was known as Oom Paul's evil genius.

Leyds is accused of having once prevented Kruger from redressing some of the Uitlander grievances at a time when the president was influenced momentarily by the reform element among the Boers. He accomplished his purpose by threatening to expose Kruger's past financial indiscretions unless the spoils system was continued for the benefit of Leyds and his associates in the Netherlands Railway.

Another spoilsman was Eduard Lippert from Hamburg, who, for his questionable services to Kruger, had been rewarded with the dynamite monopoly. Ostensibly this had been done to foster a local industry; actually, the dynamite was imported from abroad and sold at a price sometimes as high as twice its former cost.

The government of the Transvaal was in the hands of Stephanus Johannes Paulus Kruger, known to his own people and to the world as Oom, or Uncle, Paul.

He had been president of the South African Republic, commonly known as the Transvaal, since 1883 and there was every probability

landers; of the 65,000 Boers only 25,000 were males over sixteen. There were almost two adult Uitlanders to every adult Boer.

Nearly all of the 750,000 native blacks were opposed to the government, because of the harsh treatment they had always received at the hands of the Boer. They were of no importance politically.

The Uitlanders held first place in the country not only numerically, but also industrially and financially. They had purchased from the Boers more than half the land in the Transvaal, and owned more than nine-tenths of the assessable property.

The Transvaal was on the verge of bankruptcy. Furthermore, its inhabitants were constantly jeopardized by native wars. With the anticipated increase of man power through an influx of Uitlanders and with the wealth they could produce, Kruger knew he could cope successfully with these two emergencies provided he remained in supreme political control.

Having regained confidence after the recession of the economic crisis and the native menace, Kruger reverted to his old policy of "the Transvaal for the Boers." This attitude has been duplicated in Latin America, China, and many other parts of the world. Foreign capital has exploited the natural resources of these countries and the native standard of living has been definitely raised by the wealth produced. Although the natives themselves had never done anything to realize on this wealth, they as well as their governments have always resented bitterly that it should leave their country in the form of profits to those who had taken the risk and performed the labor. But in all his schemes for territorial acquisition Kruger was blocked by one man—Cecil John Rhodes.

Rhodes had become to Oom Paul the epitome of all things he hated and distrusted. Again and again Rhodes tried to deal with Kruger. Even on the return from our Matabeleland trip in 1894, he stopped at Pretoria in a final effort to come to some sort of understanding as to the future of South Africa. Both men wanted a united country, but each for his own purposes and for his own people. The interview resulted in an impasse. This obstinate and obdurate Boer was virtually the only man Rhodes was never able to win over.

Kruger's personal detestation of Rhodes was extended to include almost all Uitlanders. His suspicion of us and of our motives was

proof against all our attempts to attain what we considered our rights. He listened to the respectful petitions of the Uitlanders with grunted "Ja's," pulled at his pipe, and spat. Our spokesmen went away with the feeling that they had been talking to a stone wall—so impassive, so unimpressed, so adamant was he to all appeal of reason.

The effect of this uncompromising attitude was to unite the Uitlanders against a foe which threatened us all. In reality, we Uitlanders had little in common; not only were we of different races and languages, but so long as we were allowed social, political, and economic justice, it seemed of slight importance to us at that time whether the Vierkleur or the Union Jack waved over Johannesburg.

Prior to 1895 there had been several occasions on which friction between Uitlander and Boer had reached the breaking point. Kruger went to Johannesburg in 1890, on one of his annual visits to the towns of the Transvaal. The Rand was in the midst of a mining depression of great intensity. The president was cold and far from tactful and his speech to the populace did not tend to calm the undercurrent of rancor caused by his cavalier dismissal of the petition which the Uitlanders had seized this opportunity to present. That same evening the crowd became unruly, a riot ensued, and the angry mob trampled the Boer flag underfoot. Kruger was so incensed that he did not return to Johannesburg for five years.

Kruger said to Sir Henry, later Lord, Loch, the high commissioner of Cape Colony: "The Uitlanders remind me of a baboon I once had, which was so fond of me that he would not let anyone touch me. But one day we were sitting round the fire, and unfortunately the beast's tail got into it. He flew at me furiously, thinking that I was the cause of his accident. The Johannesburgers are just like that. They have burnt their fingers in speculations and now they want to revenge themselves on Paul Kruger."

During the early days of the Boer Republic, years before any Uitlander problem, there had been a great deal of political unrest. Kruger, as a member of the party then out of power, not only drew up lists of grievances but committed acts which smacked far more of revolution than anything ever done later by the Uitlanders in Johannesburg.

I had the satisfaction afterwards—when satisfaction was difficult

to find—of reminding Kruger that he himself had once been a rebel and that he should now have some sympathy with such fellow rebels as myself and my Johannesburg accomplices.

Since the Uitlanders had come primarily for business and not political reasons, it was many years before they began to combine against the Boer government. Such a revolt would never have been brought about by injustices like the administration of the liquor and dynamite monopolies in themselves. Nor would the sickness and the high death rate resulting from lack of a clean water supply and adequate sewerage system have been sufficient incentives for action.

It was the sum total of various irritations that fired the mounting hostilities. Some individuals were activated by one set of grievances, some by another. For example, there was the question of education. Out of \$310,000 allotted to Johannesburg for this purpose, less than \$4000 was used for the Uitlander children, although they greatly outnumbered the Boer children and the Uitlander parents supplied the money to build and support the schools. Moreover, English was not taught in the schools. The Uitlander children had to learn Taal, the debased form of Dutch used by the Boers.

One of the most outrageous grievances was the Boer assertion of their right to draft Uitlanders for service in the native wars. More than a hundred English subjects were commandeered by the Boers for their expedition against the native chieftain Malaboch, and compelled to provide their own horses and arms. The five men who refused to obey the summons were imprisoned.

In June, 1894, plans were laid by the Uitlanders for their forcible rescue. The British high commissioner visited Pretoria to discuss the matter, and privately reported that the Uitlanders were so aroused that, if he had not managed them tactfully, they would have flared into revolution. Loch declined to mediate with the Boers. But later he wrote Kruger that, unless the Uitlander grievances were redressed, revolution was inevitable, and he concentrated an armed British police force on the Bechuanaland border ready to protect the Uitlander if it came to bloodshed.

Loch at the same time informed the Colonial Office that in case of an uprising, the Uitlanders were bound to win if they had rifles; obviously they could not fight Boer marksmen with their fists.



OOM PAUL (1825-1904)



PRETORIA, THE CAPITAL OF THE TRANSVAAL

In conversation with Lionel Phillips at this time, Loch would seem to have hinted at the desirability of obtaining arms to defend Johannesburg pending British intervention. He subsequently denied this interpretation of his remarks. He claimed he had simply meant that without enough rifles to defend Johannesburg no revolution was possible. However that may have been, Phillips bought himself a rifle, and it was jocosely said that the policy of secretly arming the Uitlanders really began with him.

Loch was far more vehement against the Boers than were the Johannesburg mine owners. This is shown by the fact that after the 1894 demonstration the Chamber of Mines disclaimed all violent measures, and assured Kruger of its support.

The unequal administration of justice touched the community even more closely than the commandeering of Uitlanders. No Uitlander was assured of a fair trial in the courts. Kruger and his Executive Council could bring such pressure to bear upon the Transvaal Supreme Court that it bowed to his dictates. In 1897 the condition became so scandalous that the Boer judges themselves closed the court, declaring it was impossible to administer justice under the coercion to which they were subjected by the executive branch of the government.

This is illustrated by the case of an American named Brown. Brown had staked out mining claims in a district thrown open by the government for pegging. Unfortunately, some of Kruger's official family had been anxious to secure the same claims; hence, they induced Kruger to declare Brown's locations illegal. Brown, of course, appealed to the Supreme Court for validation of his title. When the verdict was handed down in Brown's favor, Kruger dismissed the judges. He then had the Volksraad pass a law that court decisions were subject to revision by the Executive Council of the Transvaal.

Although certain members of the court resigned in protest, it was, nevertheless, a heavy blow to the Uitlanders to find that this last method of securing justice was closed to them because of the influence of Kruger and his entourage.

Among the abuses greatest public prominence was given to the non-possession of the franchise by the Uitlanders. Although we had

founded and built Johannesburg, we had no voice in its civic affairs. The town was created as a mining camp under a mining commissioner. Furthermore, the civil government denied to the Uitlander a free press and right of public meetings. A Boer policeman could at his own discretion disperse any crowd of more than seven.

Prior to 1882, only one year's residence or the possession of land had been required of the immigrant or Uitlander for burgher privileges. At that time the law was amended and five years' residence was requisite, but the entries in the registration books were deliberately falsified by the Boer officials so that few were admitted to the franchise. Then, in 1890, the requirement was increased to fourteen years' residence; furthermore, the Uitlander must be thirty years old, have property, and belong to a Protestant church in order to vote. Every demand made on Kruger to grant the franchise was steadfastly refused.

Pointing to the Vierkleur, he would say, "You see that flag? If I grant the franchise, I may as well pull it down."

The Boers were by no means of one mind as to the justice or the expediency of Kruger's policy regarding the franchise of the Uitlanders. In 1895, thirty-five thousand Uitlanders signed a petition asking for political representation. A prominent member of the Volksraad named Jeppe addressed that body in a speech worthy of Patrick Henry:

"This petition has been signed by practically the entire population of the Rand. It contains the name of the millionaire capitalist on the same page as that of the miner; that of the owner of half a district next to that of a clerk. It embraces also all nationalities. And it bears, too, the signatures of some who have been born in this country, who know no other fatherland than this republic, but whom the law regards as strangers. Then, too, there are the newcomers. They have settled for good. They have built Johannesburg, one of the wonders of the age. They own half the soil; they pay at least three-quarters of the taxes. Nor are they persons who belong to a subservient race. They come

from countries where they freely exercise political rights, which can never be long denied to free-born men. Dare we refer them to the present law, which first expects them to wait for fourteen years, and even then pledges itself to nothing? It is a law which denies all rights even to their children born in this country. What will become of us or our children on the day when we shall find ourselves in a minority or perhaps one in twenty, without a single friend among the other nineteen, among those who will then tell us they wished to be brothers, but we by our own act made them strangers in the republic? Old as the world is, has any attempt like ours ever succeeded for long?"

Kruger always pretended to believe that the political grievances were trumped up. He felt, and perhaps justly, that, if the Uitlanders were given the franchise, they would vote for an Uitlander president, or at least a progressive Boer of the anti-Kruger faction.

Many of us were on the Rand only temporarily. We were increasingly busy with our own affairs. Consequently, any demands for political rights on our part would have been unlikely had conditions been tolerable. I believe Kruger was aware of this. But he had established his way of doing things and he never believed sufficient pressure could be brought to bear on him to compel a change.

Terrifically heavy taxation without representation was another major grievance, illustrated by the case of the Netherlands Railway Company. A monopoly was granted by Kruger for a line through Portuguese territory to Delagoa Bay to connect the Transvaal with the coast. His idea was to divert traffic from the British-controlled roads approaching from the Cape and Natal. He hated railroads, but, since they appeared to be inevitable, he intended that at least the Delagoa Bay line should not be British-owned. Hence, the Dutch were given the majority of votes in a corporation shared among Dutch, Germans, and Boers.

Not only was the cost of construction to be paid for by taxing Uitlanders, but Kruger intended by coercive methods to compel all freight entering the Transvaal to come in over the Netherlands Rail-

way; he wanted to cut our throats financially. He arranged that mining shipments consigned to the Rand via the Cape and Natal lines should be held back for months after arriving at the Transvaal border. And he set up a tariff schedule so prohibitive as to make it necessary for us to unload machinery and supplies at the railhead of the Cape line, reload into oxcarts, and cross the Vaal River by fords, or drifts, in Johannesburg. The Boers were enraged at our simple expedient and threatened to close these drifts across the Vaal to all freight of foreign origin.

When this situation developed and I informed Rhodes of the state of affairs, he wired me to come to Cape Town for a conference. On my arrival a private meeting of the leading political authorities of the Cape government was held at Groote Schuur. I explained the point of view of the Johannesburg mine operators. I showed how handicapped we were in our operations, and how the success of the whole mining industry was jeopardized by the actions of the Transvaal government.

Only a few days later Kruger proclaimed the drifts closed as from October, 1895.

Had not some action been taken, this would have been a heavy blow to the mining industry because its aim was to force the mining companies to submit to the extortionate freight tariff of the Netherlands Railway Company. But Kruger had overreached himself.

Since the Pretoria Convention of 1881 the Transvaal Republic and the Orange Free State had led a practically independent existence except for somewhat tenuous obligations to Great Britain included under the term "suzerainty." In closing the drifts Kruger had placed himself in an untenable position in respect to his treaty provisions. Cape Colony—the inhabitants of which, both Cape Dutch and English, were as one on this issue—decided to appeal to the home government for assistance, and pledged its support with men and money if England would enforce her treaty rights.

After careful consideration, the British government informed Kruger that the drifts must be reopened and allowed to remain open.

Kruger had some of the attributes of a clever diplomat. Once fairly caught, no false pride prevented him from yielding. He was like a poker player who, when he has a weak hand, bluffs, but is

careful not to carry his bluff too far lest it prove costly. Kruger rescinded his order.

The Reform Movement, as I have explained, had been tardy in inception and was slow to gather momentum. It had begun with conversation, was continued in press discussion, and was protracted by fruitless deputations to Pretoria.

Protests were being made through two bodies. The first was the Transvaal National Union, of which Charles Leonard was chairman. Although more vocal than influential, it had long been carrying on agitation for constitutional rights and had issued much literature in behalf of the unenfranchised.

The second body of protest was the Chamber of Mines, composed of influential businessmen. Although Kruger never granted a charter of incorporation, it met frequently for business reasons and often presented statements of abuses and grievances to the Volksraad.

The Reform Movement as a whole was Fascist rather than Bolshevik in its nature. Direct action was finally undertaken by a group of hard-headed, successful, conservative men of affairs, not by hot-headed, irresponsible radicals. It was the moneyed element in the revolt that finally assumed the leadership. But it was not until the late summer of 1895 that we of the mining interests actively associated ourselves with the movement. Only as a last resort will men representing vested interests risk property and life by entering into a revolution in behalf of good government.

Enemies of the Reform Movement tried to create the impression abroad that the revolt was fostered with the idea of securing control of the mining interests of the Transvaal for Rhodes's Chartered Company. This preposterous conception was not effectually combated until it was seen that the ownership of the mines was in no wise affected by the outcome of the Boer War four years later.

Nevertheless, the drifts episode had showed conclusively that there was no more to be gained by simple protestations. Moreover, the support of the British government had heartened us tremendously. The indignant conversations began to concern themselves more and more with possible action.

There was no definite plan at first, but certain of us gradually assumed leadership: Charles Leonard, the head of the National

Union; Lionel Phillips, a partner in Wernher, Beit and Company; Colonel Francis W. ("Frank") Rhodes, an officer with distinguished military record, and brother of Cecil Rhodes; George Farrar, an important mine owner; and myself.

My entry into the movement was due to the long-continued and exasperating series of government regulations which jeopardized the successful operation of the mines. I could not carry on my work efficiently, and I felt a heavy responsibility towards the people who had invested large sums on my professional recommendation.

Through this informal group, all arrangements were made. We selected men in whom we had complete confidence, were willing to assume risks, and whose co-operation we regarded as essential. Because of its failure our project may seem foolhardy now, but we who were in charge of the enterprise were not of a type likely to commit ourselves to forlorn hopes.

The skeleton of a plan began to develop as follows: First, money would have to be obtained with which to finance the movement; second, the support of Rhodes would be necessary, because he, as head of the Cape government, would have it in his power to make it succeed or fail; third, British recognition would have to be obtained should the necessity arise; fourth, an armed force would have to come to the aid of the Johannesburgers when and if the revolt started. The smuggling in of guns, the choosing of trustworthy adherents, and the formulating of a code of communications were included within the activity of those who later became the recognized leaders of the Reform Movement.

Historians have frequently asked to what extent Rhodes participated in this affair. He has been charged with inspiring the movement in the interest of Great Britain. I can categorically deny this accusation, which was largely the result of Boer propaganda, paid for by Uitlander taxes. The part he played in the revolt was chiefly financial, though he was unquestionably an important factor in our plans.

An account was opened in the books of the Chartered Company, headed *New Concessions*, on which Colonel Frank Rhodes was entitled to draw. Of the \$300,000 used before the account was finally closed, almost \$100,000 was handed over to Dr. H. A. Wolff for stores

and supplies. The major part of the balance was put in an account in the Standard Bank of South Africa, at Johannesburg, under the head of *Development Syndicate*. This stood in the names of Colonel Frank Rhodes, Lionel Phillips, J. Percy Fitzpatrick, and myself. There was also an account at the Standard Bank at Mafeking, and, finally, the *Pitsani Camp Account* on the books of the Chartered Company out of which the immediate expenses of the armed force on the border were to be paid.

In addition to this financial assistance, the Chartered Company furnished personal aid through its agents and employees.

Everyone will admit that Rhodes was in a difficult position. As premier of the Cape Colony, he was forced to rely on the support of the Cape Dutch who would have been instantly alienated by anything that bore the earmarks of a British attack on Boer independence. He was endangering his position as the most enterprising and constructive force in the development of South Africa.

Rhodes had, of course, a large vested interest in the Rand mines. The minor persecutions to which we were subject naturally reacted on him, but he was also aiming at a political goal. Although he saw no practicable way to paint the map of the Transvaal British red, he did see hope for a customs union, a railroad convention, and an ultimate confederation of autonomous states. This would have been part and parcel of his Cape-to-Cairo dream in which he saw Boer and Briton working together toward the same end. The suspicious stubbornness of Kruger had hitherto effectually blocked any inclusion of the Boer republics in the Rhodes march north.

Another impelling reason for Rhodes's co-operation was the fact, now universally conceded, that Kruger, through his Machiavellian state secretary, Dr. Leyds, was intriguing actively with Germany and Holland to make their influence dominant in the Transvaal. In spite of Boer hostility to the British, I doubt whether the Boers would long have endured other foreign dominance. They were not psychologically inclined for the role of a subject people. The very essence of the Boer was his individuality; he was not the type to submit to the goose-step tyranny of Germany.

Rhodes's financial and political support alone was not sufficient for the success of our plan. It was recognized that Great Britain's

attitude would be decisive. If the revolt should be proved to be spontaneously generated from within, we believed Great Britain would be bound to intervene and support our just complaints.

In the summer of 1895 came the retirement of Loch, whose relations with Rhodes had become extremely tense. Rhodes asked for the reappointment of Sir Hercules Robinson, whose experience with South African affairs had been long and intimate, but this did not prove a happy choice. In the past Robinson and Rhodes had worked together to conciliate the Cape Dutch. He was now not likely to do anything to weaken his position with them. Moreover, as he was a man of seventy and set in his ways, he found it difficult to follow Rhodes's sudden shifts in political strategy.

The question of whether Joseph Chamberlain, British colonial secretary, knew of the Uitlander plans at the time is largely academic. But we believed that once the lives and possessions of British citizens were in jeopardy, we could force the home government to support us.

Through Rhodes we made contact with Dr. Leander Starr Jameson at Bulawayo for military assistance. The name of Jameson was then one to conjure with. The Boers themselves had a high opinion of the administrator of Rhodesia's military powers, due to his able handling of the Matabele War. His inclusion in the scheme would not injure our case with Great Britain, because he would come as a last resort to prevent bloodshed, and not to lead a revolt.

Jameson's role was to be secondary. He was to take a position on the Transvaal border at Pitsani in the English protectorate of Bechuanaland, a hundred and eighty miles west from Johannesburg. He was to concentrate there a force of fifteen hundred men, all mounted, fully trained, and equipped with field pieces and machine guns. Each man was to bring a spare rifle to arm us in Johannesburg. The reason to be given out for his presence was the necessity for a show of force to overawe the restive natives.

It was distinctly understood that Jameson was not to move from Pitsani until he had received word, not only from other leaders of the movement, but from me personally. In the presence of Rhodes, Jameson and I shook hands as a solemn pledge that he would not cross the border until I gave him the signal. Rhodes had told him to remain at Pitsani for six months if the Reformers should need that

amount of time for preparations. As Rhodes tersely remarked, "The only justification for revolution is success."

Jameson came twice to Johannesburg to make personal arrangements. His first visit was in September, 1895. We thought then that we could muster nine thousand capable men in Johannesburg when the time for revolt should come.

His second visit was in November. At that time he was given a letter drafted and signed by Leonard, Colonel Rhodes, Phillips, Farrar, and myself. It was to be for his own protection, and was to justify his incursion in the eyes of the world. It read as follows:

Johannesburg

Dear Sir,

The position of matters in this State has become so critical that we are assured that at no distant period there will be a conflict between the Government and the Uitlander population. It is scarcely necessary for us to recapitulate what is now matter of history; suffice it to say that the position of thousands of Englishmen and others is rapidly becoming intolerable. Not satisfied with making the Uitlander population pay virtually the whole of the revenue of the country while denying them representation, the policy of the Government has been steadily to encroach upon the liberty of the subject, and to undermine the security for property to such an extent as to cause a very deep-seated sense of discontent and danger. A foreign corporation of Hollanders is to a considerable extent controlling our destinies, and in conjunction with the Boer leaders endeavouring to cast them in a mould which is wholly foreign to the genius of the people. Every public act betrays the most positive hostility, not only to everything English, but to the neighbouring States.

Well in short the internal policy of the Government is such as to have roused into antagonism to it, not only practically the whole body of Uitlanders but a large number of the Boers; while its external policy has exasperated the neighbouring States, causing the possibility

of great danger to the peace and independence of this Republic. Public feeling is in a condition of smouldering discontent. All the petitions of the people have been refused with a greater or less degree of contempt; and in the debate on the Franchise petition, signed by nearly 40,000 people, one member challenged the Uitlanders to fight for the rights they asked for, and not a single member spoke against him. Not to go into details, we may say that the Government has called into existence all the elements necessary for armed conflict. The one desire of the people here is for fair play, the maintenance of their independence, and the preservation of those public liberties without which life is not worth living. The Government denies these things, and violates the national sense of Englishmen at every turn.

What we have to consider is, What will be the condition of things here in the event of a conflict? Thousands of unarmed men, women, and children of our race will be at the mercy of well-armed Boers, while property of enormous value will be in the greatest peril. We cannot contemplate the future without the gravest apprehensions. All feel that we are justified in taking any steps to prevent the shedding of blood, and to insure the protection of our rights.

It is under these circumstances that we feel constrained to call upon you to come to our aid, should a disturbance arise here. The circumstances are so extreme that we cannot but believe that you and the men under you will not fail to come to the rescue of people who will be so situated. We guarantee any expense that may reasonably be incurred by you in helping us, and ask you to believe that nothing but the sternest necessity has prompted this appeal.

CHARLES LEONARD
LIONEL PHILLIPS
FRANCIS RHODES
JOHN HAYS HAMMOND
GEORGE FARRAR

The date was purposely omitted on the understanding that it should be filled in only if and when the Reform leaders should call on Jameson to come to their rescue.

Meanwhile, hope for a peaceful solution had not been abandoned. Kruger continued to look with suspicion on every overture, however friendly. When he was finally persuaded to visit Johannesburg again to open the first agricultural show, five years after the episode of 1890, he regarded our demonstrations of welcome as absolutely insincere and again maintained his distant attitude.

Deputation after deputation from Johannesburg put its case strenuously, and at length he brought the interview to a close by saying, "If you want your rights, why don't you fight for them?"

When Kruger's challenge reached my ears, I said, "That's a fine idea."

As one of the German Reformers put it, "This is the last straw that broke the camel's back that killed the goose that laid the golden egg."

Many doubters were now convinced that we must arm. This did not necessarily mean revolution. Conceivably, if we had gone back to Kruger, after securing the guns, and then demanded reforms, declaring our intention to fight unless they were effected, reforms would have been conceded. This may have been Loch's idea in 1894.

We had no legal right to possess arms without a Boer permit but a burgher could possess an arsenal if he so desired. Much apprehension had been aroused among us because a fort was being built on the hill commanding Johannesburg. The Boers might even bombard the town, as they had frequently threatened to do. Moreover, there were rumors that German military instructors and German arms were coming to their help.

We wanted to take action before the Boers had time to add to their present armament. We dared not wait until they were fully equipped to put down an uprising.

We had no difficulty in importing guns and ammunition from England and transporting them as far as Kimberley. There they were received by Gardner Williams, the American mining engineer in charge of the De Beers diamond properties. To get them from Kimberley to Johannesburg was a far more difficult matter to arrange,

It not only involved the great risk of seven years' imprisonment for smuggling guns, but must inevitably take considerable time.

We finally devised a system which worked successfully but slowly. Williams, assisted by men he could trust, loaded the guns and ammunition into empty Standard Oil drums. Each of these was provided with a false bottom and contained enough oil so that, if the spigot should be turned by the customs inspectors, a convincing trickle would follow. They were consigned to me at Johannesburg.

There were some exciting moments in connection with this gun-running. I was accustomed to ride with Colonel Rhodes every day before breakfast. One morning I heard the fast gallop of his horse. He threw the reins to the Kaffir boy who was holding my horse ready saddled, hurried into the house and thrust into my hands a copy of the *Standard and Digger News*.

"Look at this, Jack!"

He had it open at the story which described a collision between two trains at De Aar. One of these trains carried a shipment of guns from Kimberley. We realized that some of the drums might have been torn open in the collision and their true contents revealed.

"Jack," said Frank Rhodes, "you and I have the fastest horses in this part of the country. If necessary we can make a bolt for Natal where we'll be out of danger of extradition. We could even go on to Rhodesia, where we'd be absolutely safe."

We rode directly to town and left our horses discreetly around the corner from my office. We were greatly relieved to find a telegram from Captain Harry Holden, whose duty it was to keep me informed of the progress of the oil drums in transit.

THERE HAS BEEN A COLLISION ON THE ROAD BETWEEN
TWO TRAINS ON ONE OF WHICH ARE SOME OF OUR FRIENDS
BUT THEY ARE ENTIRELY UNINJURED AND WILL ARRIVE AT
JOHANNESBURG TOMORROW BE SURE TO SECURE PROPER
HOTEL ACCOMMODATIONS FOR THEM.

All our messages were transmitted in such improvised codes. The usual notification of the despatch of a consignment of guns was

AM SENDING YOU A DIAMOND FULL OF FIRE.

Dr. Harris was known as Cactus; Colonel Rhodes, Toad; Jameson, Zahlbar; Rhodes, Umbegangen; Leonard, Zampilio; and Johannesburg, Giovano.

Without any attempt at secrecy, I had the Standard Oil drums containing the guns stored at the different mining properties. In spite of all we could do, however, the rifles came in all too slowly—much more slowly than we had expected. If there was to be a revolt, we had to obtain rifles in far greater quantities.

It had occurred to us that the Boer arsenal at Pretoria, only a little over thirty miles away and the key to any Boer defense, could be taken by a sudden surprise attack. About 15,000 Martini rifles, ammunition for them, and three or four Maxims were stored there. These arms were kept in several galvanized iron buildings surrounded by a weak brick wall, one side of which was then being rebuilt. Although during the day there were about a hundred artillerymen on guard, after ten o'clock at night all but a few were sure to be sound asleep. By timing our attack properly, we would capture as many guns as we could carry away on wagons. The rest we would put out of commission.

I had obtained a lease of property just outside Pretoria, ostensibly for prospecting purposes. There I assembled fifty hard-boiled Americans of an adventurous spirit who were supposedly prospecting for gold.

They knew, as well as I did, that there was no gold in the vicinity, but were quite content to humor my whim so long as they were paid for it. Most of them had been discharged from companies under my control for good and sufficient reasons, including drunk and disorderly conduct. The mine managers, totally unaware that anything out of the ordinary was intended, remonstrated against my giving employment to men they had dismissed. They said this was subversive of discipline. I told them not to worry; experience had taught me how to handle such men, and, indeed, I found them tractable and not altogether uncongenial.

Towards the end of the year when the situation had become genuinely serious, I tried by subterfuge to induce my wife to take the family to Cape Town. She suspected there was some reason back of my insistence and refused to go. Finally, I took her into my confidence

and told her what we were intending, and what dangers she would run, not only from the revolt, but also from a resultant uprising of the native population. Even after this disclosure, she resolutely refused to leave Johannesburg, and there she stayed throughout all the trouble.

There was no danger of our running short of food. We had stored enough supplies to last two and a half months; there were enough further stocks in the town to ensure its holding out for three months against a siege. Our volunteers had little experience in drilling together, but most of them had been in Africa for some time and were not only good horsemen but excellent shots as well. The South African Light Horse, which rendered splendid service in the Boer War, was largely recruited from these men.

In the early part of December, James Bryce, authority on government and politics, stopped off at Johannesburg on his way back from a trip to Rhodesia. He could not actually prove that anything out of the ordinary was going on, but no person of sensibility could fail to suspect that something was toward. I would find him at my office when I came in in the morning; I would find him at my home when I arrived there at night. Nothing I could do or say would shake him off. He had a charming personality, and I enjoyed his company except when he asked too-pertinent or embarrassing questions. I finally told him that he possessed all the necessary attributes of a first-class American newspaper reporter.

I did have in mind one further idea about which I kept very quiet. It seemed to me that once the arsenal at Pretoria was captured it would be a relatively simple sequel to take Oom Paul himself back to Johannesburg with us. I felt confident that, when subjected to this other environment, he would prove more receptive to our ideas.

With all these various activities going on in Johannesburg, the atmosphere reminded me of what we Californians used to call earthquake weather.

CHAPTER EIGHTEEN

The Revolt of the Uitlanders

ARRANGING THE DETAILS OF "FLOTATION"—I LAY OUT JAMESON'S ROUTE—THE DOCTOR BECOMES RESTIVE—THE TRANSVAAL GROWS SLIGHTLY AWARE—SETTING THE DATE—THE FLAG INCIDENT—PUBLICATION OF THE LEONARD MANIFESTO—AN AFTERNOON CALLER—JAMESON STARTS TOO SOON—FORMATION OF THE REFORM COMMITTEE—AN UNUSUAL NEW YEAR'S EVE PARTY—KRUGER EXTENDS AN OLIVE BRANCH—WILLOUGHBY'S FATAL BLUNDER—JAMESON SURRENDERS AT DOORNKOP—WE LAY DOWN OUR ARMS—UNDER ARREST

*M*ark Twain once remarked that people were always talking about the weather, but no one ever did anything about it. So all of our discussions must have seemed to Jameson who, throughout December of 1895, was chafing for action just across the border at Pitsani in Bechuanaland, thirty-seven miles from Mafeking on the border of the Transvaal. We, too, felt impatient, engrossed with our own plans and preparations at Johannesburg.

Jameson's troops began to assemble early in the month. They were in two divisions. The Bechuanaland police force of one hundred and twenty, under command of Major Raleigh Gray, was at Mafeking. The main body of Chartered police, under Jameson himself, was at Pitsani. Lieutenant Colonel Sir John Willoughby was to have the

active military command of the combined forces, amounting to four hundred and seventy men.

It was the middle of the South African hot season. The oppression weighed heavily upon our spirits. Action was an effort, although we realized that we must act as swiftly as possible.

Jameson, equipped for action, restlessly impatient, accused us of apathy. He was wrong. His chief problem was to hold his forces, many of whom were volunteers owing him only nominal obedience. He overlooked our difficulties. He ignored the fact that we had multitudinous and vexatious details to handle, the omission of any single one of which might ruin our plans. With the psychology of the military man, he discounted the importance of our problems and the necessity of our aid. Unfortunately, we did not realize that this was Jameson's attitude although we were in constant communication with him by messengers; meanwhile, we proceeded as rapidly as we were able.

Back in November my wife and I had gone by train to Kimberley where I had an appointment to meet Rhodes for a discussion of various phases of our preparations. From there we proceeded to Mafeking, and then, in order to study the topography of the country, returned to Johannesburg by Cape cart and laid out the best route for Jameson to follow.

Sir John Willoughby did not approve altogether of the route I recommended; he had a vague idea of besieging Boer settlements on his way to Johannesburg. But Dr. Jameson took my view that the chief consideration was expedition in getting to Johannesburg to secure relief for the city.

When my wife and I arrived at the Transvaal border, we were stopped by a military doctor who informed us that there was an epidemic of smallpox just over the line, and we should have to produce satisfactory vaccination scars before we would be allowed to pass. Since mine was on my arm, I was speedily approved. My wife, contrary to the Victorian custom, had been vaccinated on the leg. She was much embarrassed, but made the best of the situation; she quickly lifted her dress to the necessary height and as quickly dropped it. In equal embarrassment, the young doctor signed her quarantine record.

After we had gone a short distance beyond the border, my wife suddenly turned to me and said, "My goodness, Jack, I showed him the wrong leg."

This experience was the only touch of humor in what was a very serious undertaking.

Along the road from Pitsani to Johannesburg, Dr. Henry Wolff, an intimate friend of Jameson, under our direction established stage stations ostensibly in connection with mining developments in that section. These stations were stocked with food to supplement Jameson's commissariat.

It has been alleged that we failed to carry out our agreement to provide changes of cavalry mounts for the Jameson troopers. As a matter of fact, Jameson had not suggested any such arrangement as obviously it would have been impossible to send several hundred cavalry mounts without at once arousing the suspicion of the Boers. In fact, there were few horses of this kind aside from those owned by the Boers, from whom we would have had to purchase them.

Meanwhile, in the early days of December, Jameson's restlessness increased. He did not understand the newer political complications of our situation and his uncertainty accentuated his impatience.

Jameson usually showed good judgment in selecting men who could serve in a confidential capacity but he made a mistake in his choice of a well-known young Englishman to convey a message to me. On his arrival in Johannesburg this young fellow happened to meet two old Eton schoolmates. They celebrated the reunion by imbibing too freely. Jameson's messenger became very confiding and told them the plans of the Reform Committee.

The next morning his two friends came to see me, expressed great regret at what they had to tell me of the night before, but assured me that I need feel no concern: they would give up their proposed big game shooting trip to the North and would remain in Johannesburg and give what assistance they could to the Reform Movement. They thought Jameson's messenger should not be entrusted with other important communications, however.

I called the messenger to my office and he finally confessed his breach of confidence. I reprimanded him severely and then told him to return in an hour as I had a most important message to send

by him to Dr. Jameson, and said that he must guard the letter at all costs, and to deliver it personally into the doctor's hands. This was the letter:

My dear Jameson:

For God's sake don't send any more damn fools like the bearer of this letter to me. He has divulged the entire plans to two Englishmen who are here with us. It will not make any difference as they are loyal and will help us all they can; *send the bearer* to the interior of Africa where he will be lost for months.

Jameson read my letter immediately to the young man and sent him on a mission some hundreds of miles away.

Two years afterwards at a dinner in London I escorted a young lady to the table. I noticed that she was unusually disagreeable. None of my efforts at conversation were successful; she remained frigid and answered only in monosyllables. I tried to break through the barrier by asking if she had ever been in Africa, America, and other countries. The reply was "No." I was at a loss to account for her attitude.

After dinner was over, I asked my hostess about the young lady I had had the pleasure of taking in to dinner, as I had not caught her name when introduced. Her answer solved the puzzle. She was the sister of Jameson's messenger.

On December 12th, Jameson wired me frantically, to "inform weak partners more delay more danger. . . . Do all you can to hasten the completion of works." We had been making every effort to bring these weak partners into line and consolidate our tactical position. We knew Rhodes's co-operation was assured, but we felt it equally necessary to obtain the personal support of Alfred Beit, whose interests on the Rand were as great as those of Rhodes himself. Furthermore, I relied on Beit's sagacity and foresight and wanted the advantage of his personal influence. His partners, Lionel Phillips and Percy Fitzpatrick, had given invaluable service to the cause, but a number of men in Beit's employ at Johannesburg had not been particularly zealous in the movement. Rhodes was as desirous as we

that Beit should come in person to enlist the active co-operation of his lukewarm employees so that the Consolidated Gold Fields would not be left holding the bag and that we would present a united front to the Boers.

Volunteers from Cape Town were now joining Jameson's camp and some even came to Johannesburg. We had so little use for them that finally Colonel Rhodes had to wire Major Robert White, Willoughby's chief of staff, to send no more heroes until January, as we had neither room nor equipment for them. We had but a fraction of the rifles required for arming our own volunteers.

With the approval of the other leaders, I wired Rhodes on December 18th, and said the "flotation" would have to be postponed until Beit could come to Johannesburg. A few days later Beit wired back from Cape Town that he could not come at the moment because of illness, and inquired as to the reason for the hitch in our plans. He said he did not want his illness to interfere with the date of the "flotation"; he could not understand why the revolt should not take place immediately.

On receiving assurance that he was heartily in sympathy with our plans, we set midnight of December 28th as the provisional time for the beginning of the revolt, but we soon found that the date would have to be changed and the "flotation" would have to be postponed. Therefore, we immediately sent Jameson a wire in code, saying that the rising would not take place as planned on the 28th, and that he must not move until he received further instructions. Jameson's only reply was to wire Colonel Rhodes that he did not see how he could delay beyond December. The reason for our change of plans was that, in the first place, in our haste we had neglected to take into consideration that the Christmas season was an important religious festival for the Boers, and that Pretoria would be thronged with burghers. This would prevent, or at least make very difficult, our proposed attempt on the arsenal.

In the second place, even then not enough arms had arrived. We had as yet only a thousand rifles, which was but a small fraction of those actually needed.

Most disturbing of all, certain of the Reformers had brought from Cape Town inflammable news that Jameson intended to insinuate

the British flag into the proceedings and carry it into Johannesburg, and that Rhodes had agreed to the plan.

This caused great consternation in our ranks. Many of us, particularly the large American contingent, were not British subjects, and many of the British themselves were averse to changing the flag.

To settle this point, we sent a committee to Cape Town to tell Rhodes that we would take no action if Jameson insisted on hoisting the British flag, and also to inform Rhodes of our state of unpreparedness. Assurance was at once sent back that the apprehension over a possible change of flag was groundless. Nevertheless, it was apparent to me by Christmas Day that many in our ranks had a profound distrust of Jameson's attitude which was only equaled by Jameson's lack of confidence in our zeal.

Jameson naturally feared the possibility that the Boers might discover our real plans. Moreover, his forces were being constantly depleted; his men, who were not yet acquainted with the purpose of their assembling, had begun to quit him. He became more and more worried. He notified us that he might be obliged to act prematurely. The telegraph wires were vibrating with activity.

Dr. Rutherford Harris, secretary of the Chartered Company, who was working jointly for Rhodes and the Reform Committee at Cape Town, did not help to allay Jameson's fears when he wired him, December 23rd, "We suspect Transvaal is getting aware slightly."

It was obvious from the messages we were receiving from Jameson that he was attempting to hurry us. We realized that he might even be trying to force our hand and to make the "flotation" independently of us. We were confident, however, that we had convinced Jameson of the need of postponement.

One week seemed sufficient time to clear up the flag incident, so we set January 4th as the second provisional date on which the rising at Johannesburg and our attack on the Pretoria arsenal should take place. In order to blind the Boers to the imminence of this event, an open forum for the discussion of Uitlander grievances was scheduled and announced to take place January 6th—two days after the uprising. The agenda was taken from a manifesto drawn up by Charles Leonard, after a consultation with Rhodes at Cape Town in October,

and later with Phillips, Colonel Rhodes, and me. The carefully annotated heads of topics were as follows:

(1) Full representation in the Councils of the State in proportion to our numbers and vested interests; being the majority of the people we claim the right to be included in a true government of the people by the people for the people; (2) Proper control of public moneys and true responsibility to the people; (3) Absolute independence of the courts and the raising of the status of the judges; (4) The possession and control of our railways and public works; (5) The abolition of monopolies; (6) Free trade with the neighbouring States of South Africa in all products thereof; (7) A settled policy which, while guarding the legitimate interests of the South African Republic zealously, shall foster the goodwill of the other South African States and strengthen the bonds of commerce and good feeling between us and them; (8) Pure administration; (9) Equal rights for the English and Dutch languages.

This "sweetly reasonable" document, as the *Standard and Digger News* called it, was signed by Leonard as chairman of the Transvaal National Union and published December 26th.

Kruger's only comment when he read it was: "Their rights. Yes, they'll get them—over my dead body."

Nevertheless, the proposed mass meeting accomplished its purpose: it deceived the Boers as to our actual plans. Apparently it never occurred to them that we would move before that date.

On December 26th, 27th, and 28th, urgent telegrams were sent by Dr. Harris to Jameson that he must not move.

Basil Williams says in his book, *Cecil Rhodes*:

Throughout the 26th, 27th, and 28th telegrams of increasing urgency were being sent to Jameson from the Chartered Company's office, bidding him stand fast. Dr. Harris was evidently moved almost to tears by the

336 The Autobiography of John Hays Hammond

hesitation of Johannesburg, and concludes one of his telegrams "Ichabod"; but he makes it quite plain to Jameson that he must not move: "ALL OUR FOREIGN FRIENDS ARE DEAD AGAINST FLOTATION AND SAY PUBLIC WILL NOT SUBSCRIBE ONE PENNY TOWARDS IT EVEN WITH YOU AS DIRECTOR. . . . WE CANNOT HAVE FIASCO."

In fact, message after message went to Jameson urging him to be patient. "It's all right if you'll only wait," reiterated Harris, while at the same time adjuring Sam Jameson, in Johannesburg, to "Keep the market firm."

Jameson either could not, or did not care to, understand the urgency of our need for delay. As I have just said, he was afraid the Boers were beginning to wonder why he was training soldiers so near Johannesburg. But Dr. Harris notified him not to worry about any suspicion his armed force might create. He told him it did not matter if people thought he was threatening the Transvaal; he was within his rights in keeping the force there. On December 27th, Jameson wired his brother Sam:

LET J. H. HAMMOND TELEGRAPH INSTANTLY ALL RIGHT.

I replied:

WIRE RECEIVED. EXPERTS' REPORT DECIDEDLY ADVERSE. I ABSOLUTELY CONDEMN FURTHER DEVELOPMENTS AT PRESENT.

This statement seemed definite enough to me and to the Reform Committee. Sam Jameson also telegraphed to the doctor on December 28th:

IT IS ABSOLUTELY NECESSARY TO POSTPONE FLOTATION THROUGH UNFORESEEN CIRCUMSTANCES UNTIL WE HAVE C. J. RHODES'S ABSOLUTE PLEDGE THAT AUTHORITY OF IMPERIAL GOVERNMENT WILL NOT BE INSISTED ON.

After my telegram had gone, I began to wonder more and more what Jameson intended to do. His past actions had certainly not been of a kind to instill faith in his patience and self-control. He

was obviously fretting, and no one knew better than I how fatal any impetuous action on his part might prove. However incredible it might seem that Jameson should actually plan to start without receiving word from the Reform Committee and from me personally, even that remote possibility had to be guarded against.

We decided to take such steps as would make premature action on his part impossible. Captain Holden was sent on horseback across country to Pitsani. Major Heaney, a West Point graduate for many years associated with Jameson in Rhodesia, went by special train to Mafeking. Both these Jameson adherents bore the same message, and we were certain that one or the other would be delivered by Sunday, December 29th. They were to inform the doctor that the guns were arriving so slowly that we had as yet only a few more than a thousand rifles all told and hardly enough ammunition to last through an hour's steady firing.

Consequently, if Jameson moved, he would, to use his own favorite expression, "ball everything up."

The sending of these messages relieved our minds. It did not occur to us that the doctor would make any decisive move after he had heard the facts at first hand.

Rhodes himself made one final effort, December 29th, to stop Jameson. "On no account whatever must you move. I most strongly object to such a course."

Unfortunately it was Sunday and the telegraph office could not get through to Mafeking. Even if the wire had been delivered, it is doubtful whether Jameson would have heeded the command.

Saturday, December 28th, Kruger returned to Pretoria from a tour of the principal Transvaal towns. When he was informed of a rumored uprising, he said he did not believe it. Even so, he remarked, his burghers should remember that if they wanted to kill a tortoise they must wait until he sticks his head out of the shell.

Kruger had barely reached his home when he was approached by a deputation of Americans who had gone to Pretoria independently, without the sanction of the men in control of the Reform Movement. The group included those very men for whose disciplining we had desired Beit's presence. They were received civilly enough. Like Napoleon, Kruger was accustomed to losing his temper principally

for effect. After he had heard the Committee's proposals for a peaceful solution, he asked, "If a crisis should occur, on which side shall I find the Americans?"

The deputation answered, "On the side of liberty and good government."

To this the president replied, "You are all alike, tarred with the same brush; you are British in your hearts."

He became really irritated, however, when the Americans asked, "If we take the oath of allegiance, will you then not trust us?"

He replied, "This is no time to talk about these things—I can promise you nothing."

We did not expect that anything would happen in the next few days. But at noon on Sunday, December 29th, came a telegram which threw us into a fresh state of alarm. It was addressed to Dr. Wolff and read:

MEET ME AS ARRANGED BEFORE YOU LEFT ON TUESDAY NIGHT, WHICH WILL ENABLE US TO DECIDE WHICH IS BEST DESTINATION; MAKE ADV[OCATE] J. W. LEONARD SPEAK, MAKE CUTTING TONIGHT WITHOUT FAIL, HAVE GREAT FAITH IN J. H. HAMMOND, A. L. LAWLEY AND MINERS WITH LEE METFORD RIFLES.

We concluded that Jameson was making a final bluff in an effort to force action. We were still perfectly sure that the arrival of our personal messengers would have effectively leashed Jameson.

Unperturbed, I went about my regular business in connection with plans for the revolt. Early Monday afternoon I attended a meeting to hear the results of the Saturday interview between the American delegation and Kruger. We appointed a committee of three to go to Pretoria on Tuesday and once more lay our demands before the president.

I returned to my office a little before four o'clock. Shortly afterwards, I was waited upon by Sammy Marks, one of Kruger's intimate business associates. I knew the man well as I had been the consulting engineer of mining companies in which he had large interests. I was well aware of the fact that he had not called merely to

pass the time of day. Marks, evidently nervous and excited, began immediately to discuss current rumors. I was sparring for time until I could ascertain his true object, when the door opened and a clerk handed me a slip of paper. On it was written:

"Jameson has crossed the Border."

I was thunderstruck!

In a voice as steady and unconcerned as I could manage, I asked, "What's that you were saying, Sammy? You think it looks as though there might be bloodshed?"

"Well, they're saying around town that you've run in thirty thousand rifles. That looks like fighting to me."

"So that's it," I thought to myself. "Kruger knows Jameson's started and he's trying to find out what we're up to."

A little American bluff seemed indicated. I said nonchalantly: "Oh, I wouldn't want to say exactly how many guns there are, Sammy. But I hardly think it's quite as many as that."

I was twisting the slip of paper in my hand while watching the effect of my words. They seemed to be going down well, but I knew how important it was to make Marks believe that we were better prepared than was actually the case. I felt certain that, if Kruger should suspect our woeful state of unpreparedness, Johannesburg would be attacked before Jameson could get within a hundred miles of us. That would be the end of the Reform Movement.

"And how about the artillery, Mr. Hammond? Is it true you've got thirty cannons?" queried Sammy, unable to conceal his eagerness. I remembered with amusement the mining pumps covered with tarpaulins that we had hauled through the streets to give the impression of cannons. The sight of these had succeeded in giving rise to the rumor.

Nevertheless, I kept up the game. "If they're saying that, they're probably exaggerating. You know how people talk, Sammy."

I could see that Marks had swallowed the bait. He lost no time in saying farewell. The door had barely closed behind him when I dashed to my secretary's room. "Marks has gone! Tell Fred to follow him and not let him out of his sight."

Fred soon reported that Marks had left by special train for Pretoria.

Some months after my release from jail in Pretoria, when good feeling had been re-established between the individuals of the Reform Committee and their Boer friends, Marks told me, as a good joke on himself, what he had reported to Kruger after his interview with me.

"Mr. President, I fear there is going to be bloodshed in Johannesburg. I saw hundreds of men marching and drilling, several cannons being hauled through the streets, all the Uitlanders are armed. I know this for a fact. I got an admission from my friend, Hays Hammond. He's had charge of my mines and I have absolute confidence in him. Hammond practically admitted to me that there were at least thirty thousand rifles and thirty cannons."

My next move was to get in touch with the other leaders. They had already received the news from Lawley, who had rushed into headquarters waving a telegram and shouting, "It's all up, boys. Listen to this! 'THE CONTRACTOR HAS STARTED ON THE EARTHWORKS WITH SEVEN HUNDRED BOYS; HOPES TO REACH TERMINUS ON WEDNESDAY.'"

And so vanished our carefully laid designs for taking the Pretoria arsenal. All we could do now was to revamp the plan to fit the altered circumstances.

Within fifteen minutes messengers were on their way to call together those Reform leaders who had not yet heard the news. We still believed that, whatever the reason for his action, Jameson must be supported.

Before eight o'clock that evening we had organized an emergency Reform Committee. We sent telegrams to Rhodes and to Sir Hercules Robinson at Cape Town, urging that the latter should come at once to avert civil war.

Ever since word had first come that Jameson was on the way, women and children had begun to leave the city in large numbers. We heard that the Natal train had been wrecked with many casualties. This cast an added gloom over everybody. The refugee women and children who remained were given bunks at the clubs. As a

matter of precaution, all canteens had been closed so that no Kaffirs could obtain liquor.

By midnight the alarm caused by Jameson's premature start had subsided; the streets were quiet. After working nearly all night, at four o'clock I reached Heath's Hotel, to which I had brought my family, and was just on the point of going to bed when I was called back to the Reform Committee, which had decided to meet in perpetual session.

We had appointed subcommittees for replacing the Boer police in the town, for mounting Maxims on the surrounding hills, for securing provisions, for distributing such guns as we had, and for providing for the relief of the women and children who had been called in from the mines. The Johannesburg *Star* of Tuesday, December 31st, carried our proclamation asking the inhabitants to commit no overt act against the Boer government. Our telegraphic communications with the outside world were that day cut off by the Boers.

No shops opened on Monday; all were tightly shuttered with wood or corrugated iron. The Boer police vanished from the streets and our own emergency force took control.

Before nightfall we had distributed the rifles from the courthouse; squads began drilling in the streets. Some twenty thousand men must have volunteered, but there were arms available only for a few hundred, and no way of securing a further supply. Including the fifteen hundred rifles rushed in after Jameson had started, which were concealed in freight cars under a thin layer of coke, there were no more than twenty-seven hundred altogether.

The extremely sultry day turned into a calm moonlit night. The excitement on the streets gradually died down.

Although Johannesburg was pre-eminently a British community, there were many Americans there. Prior to the last few months of the conspiracy, we had taken no aggressive political position, and even then we were not actively interested except when the Boers planned to commandeer Americans as well as British for service in their native wars. At that time I called a secret meeting of several of my mine managers and invited T. B. Brown (known as Barbarian Brown) to be present. I had first encountered Brown when he was editor of a newspaper in Idaho. He was an American and

we knew him to be a paid spy of Kruger, although Brown did not suspect that we were aware of this.

The meeting was held in Victor Clement's home at the Simmer and Jack mine, of which he was manager. After swearing all to secrecy, we took an oath that if any of us were commandeered the first shot fired would be aimed at the Boer commander. This secret resolution was quickly reported to Kruger, with the result that there was no commandeering of Americans.

A meeting was called New Year's Eve to hear the report of the American deputation who had just returned from Pretoria. Over five hundred Americans, including mine managers, mechanics, foremen, and carpenters, attended. Captain Thomas Mein, manager of the Robinson mine, was in the chair. Brown reported for the deputation. Although he was pro-Kruger in his sordid sympathy, he was forced to admit that Kruger had given them no satisfaction and it was his own opinion that nothing further could be done.

Mein announced from the platform that the meeting had been called to decide whether the Americans would give their support to the revolution then brewing against the Boer oligarchy. This was as far as he got.

Brown and his fellows had decided to break up the meeting by making it impossible for anyone to speak. So loud was the uproar that, just as I made my somewhat belated entrance into the hall, Captain Mein was about to adjourn the meeting in despair.

Perceiving that the situation was practically out of hand, I walked rapidly down the aisle, mounted the platform, and raised my hand for a hearing.

"What's going on?" I demanded. "Sit down, everybody. . . . Brown, I consider that the report you've brought back from Kruger is an insult. We don't want any Kruger men in this hall. Whatever talking is going to be done in this room is going to come from the platform."

The hubbub gradually subsided, particularly as threatening gestures from the American miners under my management lent authority to my words.

When the room was quiet enough, I said, "I respectfully request that everyone who is not an American leave the room."

The few English who had dropped in slipped peaceably away.

I then explained in simple terms the situation confronting us. "You all know exactly what we're here for. I don't need to tell you the difficulties under which we've been working, or how unjustly we've been treated by the Pretoria crowd. All I'm going to ask you is one single question. Don't you agree with me that we've now reached the same point as the signers of the Declaration of Independence when they announced that 'it was their right and their duty to throw off a despotic government, and to provide new guards for their future security'?

"That's all there is to it," I explained. "You won't find anything in the Declaration of Independence that limits this principle to latitude or longitude. It's a clean-cut issue to be faced by us Americans here and now.

"You know as well as I do that we won't stand for having a British flag hoisted over Johannesburg. All we want is justice from Kruger and his grafters. You can rely on me that I'll shoot any man who hoists any flag but the Boer flag."

The assemblage applauded vigorously. The vote was immediately taken and, out of the more than five hundred present, all but five voted to take up arms against Kruger. The George Washington Corps of one hundred and fifty members was at once organized for active service, and pledged its support to the revolutionary cause.

As soon as this meeting was over, I rushed back to the Gold Fields offices where the Reform Committee was discussing proposals brought by Kruger emissaries known for their progressive sentiments. We called them the Olive Branch delegation. Among them were Eugene Marais, editor of the leading Boer newspaper, and Malan, Joubert's son-in-law. The delegation were favorable to our cause, and some of them were personal friends of members of the Reform Committee. They had brought from the Boer government letters of introduction to Lionel Phillips and myself. We refused to receive them in the capacity of a deputation from Kruger unless they came accredited to the Reform Committee of Johannesburg. This stipulation was immediately accepted.

That Kruger was willing to negotiate with the Reform Commit-

tee as the representative body of the people of Johannesburg, and not as outlaws, is a fact that was subsequently ignored at our trial.

The meeting lasted until midnight. The gist of the Boer proposals was contained in the famous statement: "We come in fact to offer you the olive branch; it is for you to say if you will take it; if you are sincere in your professions, you will."

We discussed the question of grievances; and came to an agreement on most of the important issues except the granting of the franchise to Catholics and Jews, to which Kruger had always been unalterably opposed. As we had many Catholics and Jews on our Reform Committee, we could not yield on this point.

The delegation told us that Sir Hercules Robinson had sent a letter to Jameson commanding him to turn back; they expected him to obey. They further asked us to send a deputation to Pretoria to meet a Boer commission there. Many of our committee felt that this was merely a ruse on the part of the Boers to gain time, but we accepted the invitation and sent the deputation.

On the following day, at a meeting of the Reform Committee at its headquarters in my office, in the building of the Consolidated Gold Fields Company, every man raised his hand and swore allegiance to the Boer flag which I had procured and had raised over our headquarters, where it remained throughout the crisis.

C. D. Rudd, Rhodes's partner, then at Cape Town, sent a message of protest against this usurpation, saying that we would thereby embarrass the Gold Fields Company. I sent back a prompt reply that I considered the Company was already up to its neck in the revolt and I could not see how it could be further embarrassed. I suggested that he come up personally and discuss the matter with the Reform leaders, knowing that this invitation would not be accepted.

The sixth edition of the *Star*, Tuesday, December 31st, carried the headlines that Jameson was only a few miles away. Unofficial messengers scurried back and forth between his camp and the town. Rumors of all kinds were rife. The populace was raised to a pitch of high excitement by Jameson's proximity. He had become a hero, and there was much pressure to have the citizens go out to meet him and conduct him in triumph into the city. There was a total misconception among the people as to the seriousness of the situation.

Up to this time, with the exception of the Reform leaders, the people of Johannesburg had been kept in ignorance of the number of guns in the possession of the Reform Committee. They were under the impression that there were many times the number we actually had. Obviously it would have been fatal to the cause if the truth had been made public.

On Wednesday, Sir Jacobus de Wet, the agent of the Cape government at Pretoria, was sent for by Kruger, who told him to announce to the Reform Committee in Johannesburg that they should follow a constitutional course. This same day we learned that the letter of invitation, which we had given to Jameson undated, had been made public. Percy Fitzpatrick, one of the leading members of the Reform Committee, says in his book *Transvaal from Within*:

The public by this time knew of the letter of invitation; it had been taken on the battlefield and news of it was telegraphed in, and apart from this the writers had made no secret of it. But what the public did not know was the efforts made to stop Jameson and the practical withdrawal of the letter before we had started.

We could no longer ignore the fact that he had started in clear violation of our intent; he had tried to "make his own flotation."

The leaders of the Reform Committee and other members who had inside information were deeply incensed against Jameson for what we justly regarded as his betrayal of us.

I asked Jameson when I saw him after his release from Holloway Prison in London why he left Pitsani against our protest. He said that his men were deserting him and the Boers were getting very suspicious and if he had not started then, he never could have come in. I told him that it would have been much better if he had never started.

Lionel Phillips went to Pretoria where he met the government commission on Wednesday noon and detailed our position at Johannesburg. He said he did not know why Jameson had started, which was true, but he aroused the suspicions of the Boers, who already knew him as one of the signers of the Jameson letter of invitation. They

346 The Autobiography of John Hays Hammond

gave him the impression, however, that our grievances would be redressed. He informed them that we leaders would be personally responsible for Jameson's leaving peaceably as soon as he arrived.

After Phillips returned to Johannesburg, at eleven the same night, he addressed a great crowd waiting for news in front of the Consolidated Gold Fields Building. Speaking from the balcony, he said the Boer commission had assured us of earnest consideration of our grievances. He declared again to them that Jameson must have made a mistake, but that he and the other leaders had offered their own persons as guarantors of Jameson's safety. This proposal had been rejected by Kruger, who, nevertheless, had asked for and received a full list of the Reform Committee members. Phillips stated further that Sir Hercules Robinson was going to Pretoria as mediator, and that there was to be an armistice pending his arrival and negotiations.

The crowd kept interrupting Phillips with cries of "How about Jameson? . . . What are you going to do about Jameson?"

Phillips knew how to handle the mob. He shouted: "We intend to stand by Jameson. Let's have three cheers for Dr. Jim." The response was hearty, and the crowd slowly dispersed.

Thursday morning came, and still no word from Jameson as to why he had started. There were rumors that he was fighting near by; the *Star* published an edition every hour recounting Jameson's supposed progress; doctors, ambulances, and volunteer nurses went out to get the wounded.

J. J. Lace, one of our committee who had accompanied the messenger sent by the high commissioner to intercept Jameson, returned with the news that the doctor had actually received Robinson's proclamation, to wit:

Whereas it has come to my knowledge that certain British subjects, said to be under the leadership of Dr. Jameson, have violated the territory of the South African Republic, and have cut telegraph wires, and done various other illegal acts; and whereas the South African Republic is a friendly state, in amity with Her Majesty's Government; and whereas it is my desire to respect the independence of the said State;

Now, therefore, I hereby command the said Dr. Jameson and all persons accompanying him to immediately retire from the territory of the South African Republic, on pain of the penalties attached to their illegal proceedings; and I do further hereby call upon all British subjects in the South African Republic to abstain from giving the said Dr. Jameson any countenance or assistance in his armed violation of the territory of a friendly State.

Lace told Jameson that the Uitlanders were powerless to help him; that they had warned him to that effect, and Jameson admitted having received our messengers before he started from Pitsani. Indeed, the messengers had accompanied Jameson on the Raid. Lace also told Jameson that we could not understand why he had started. He received a feeble answer which was not a satisfactory explanation.

When Lace left he knew that Jameson realized fully that we were powerless to help him. Jameson feigned that we had allowed him to come in and then deserted him.

About daybreak on Thursday, January 2nd, Colonel Rhodes and I, who had been sleeping on the floor in my office, were awakened by the arrival of bugler Valle of Dr. Jameson's force. He told us that he had left Jameson but a few hours before; that Jameson was progressing surely but slowly on his way to Johannesburg. We carefully catechized him as to Jameson's condition, and he assured us that Jameson did not expect armed support from Johannesburg. Valle was of the opinion that Jameson would reach Johannesburg within a few hours.

Even if Jameson had needed any support, it would have been impossible to give it to him as we had but few mounted men and a small amount of ammunition. Furthermore, Johannesburg would have been left entirely at the mercy of the Boers who were massing on the outskirts of the town, and once the Boers got into Johannesburg and found that we did not have any armed men, there would have been much bloodshed.

The Reform Committee decided this (Thursday) was the time to seize the fort at Johannesburg, which by now had been well provided

with guns sent from Pretoria by the Boers. I felt that this should be delayed no longer: if Jameson was such a short distance away, his arrival might be the signal for a Boer bombardment. To help me out, I had secured the assistance of a well-known American saloon owner, and a small group of us were at his place discussing the ways and means of carrying out our plan to take the fort. One of our fellow conspirators, who previously had been an ardent advocate of the scheme, now began to suggest difficulties. Since this did not correspond with his earlier enthusiasm, I said: "There isn't going to be any monkey business about this. You're going into the fort first, and I'll be right behind you. If I see the slightest sign of anything wrong, I'll shoot you."

At this crisis there came a tap on the door. The American opened it and received a note. It was written in Dutch, so he handed it to the hesitating conspirator, who, with barely concealed satisfaction, announced:

"Jameson has surrendered at Doornkop."

Assuming this an excuse for further postponement of our attempt to capture the fort, I said firmly, "That's a lie! Jameson hasn't been captured."

All too soon, however, the truth of his statement was verified. Willoughby had left the prescribed trail to go off cross country to Doornkop, where a battle had resulted in the defeat and capture of Jameson and his officers. They were already on their way to Pretoria as prisoners.

I returned to the Reform Committee headquarters. We learned immediately that a considerable Boer force had gone to the fort after Jameson's capture. This, of course, compelled us to abandon our plans for seizing the fort.

Another crowd of Johannesburgers had gathered in front of the headquarters building. Ugly as had been the mood of the mob of the previous night, this one was in noticeably worse temper. There were threats to blow up the building with us in it. Reiterated cries were uttered: "What about Jameson now?"

Several of the members tried to speak from the balcony, but were

howled down. Finally Sam Jameson appealed for quiet and was recognized.

"I beg you, for my brother's sake," he said, "to maintain a spirit of calm restraint. We have done everything in our power for him, and used our very best judgment. In face of the complicated circumstances, no other course could have been taken."

Had any other member of the Committee made this statement, his words would have carried no farther than the balcony rail, but since this was the great Dr. Jim's own brother, the people listened to him. The tension was relieved, and the crowd melted away.

I was dead tired. When I reached the hotel at midnight, I took off my clothes for the first time in three days and nights and got a much-needed rest. The worst had happened, and for the moment there was nothing more to do.

On Friday it was difficult to untangle truth from fiction in the maze of rumors afloat in the town as to the terms on which Jameson had given up his arms. We understood that before he surrendered it had been stipulated that he and his men were to be spared, but Boer reports gave out that the surrender was unconditional. Further stories said definitely that his own life was to be forfeited.

The Committee issued a proclamation that, during the armistice pending Sir Hercules Robinson's arrival, no hostile move should be made. The entire town was in the depths of depression. Armed Boer troops began to appear on the outskirts. A few of our recruits continued to drill in a half-hearted manner in Government Square; otherwise everything was quiet, and remained so over the week-end.

The plight of the Reformers was pitiable. The revolutionary atmosphere was a combination of Armageddon and a psychopathic ward. Our aspiration for reform had not abated, but untoward facts confronted us. The proclamation of the high commissioner; the appeal to save the lives of Jameson and his men; the promises of the Boer government that our grievances would be redressed, made confusion worse confounded as to our course of action. The leaders were, indeed, in a quandary.

We could not imagine why Sir Hercules Robinson was so slow in arriving at Pretoria. Later we learned that he had quickly found out that the news of Jameson's invasion was true. He already had

in his possession a cablegram from Chamberlain—who had seen the Leonard Manifesto—stating that Great Britain would support the high commissioner in keeping the peace. After he had issued a proclamation, and had seen to it that Jameson had received it, there followed the arrangement with Kruger by which Sir Hercules was to go to Pretoria to effect a peaceful settlement.

He had been summoned from his country villa early on Monday morning, December 30th. He finally left Cape Town at nine P.M., Thursday, January 2nd, accompanied by a trained nurse. He arrived at Pretoria just on the eve of the Boer sabbath and Kruger, in accordance with the strict Dopper views, postponed discussions until Monday, January 6th. Although Robinson arrived at Pretoria on Saturday evening, it was not until the next day that he cabled Chamberlain that the state of affairs was critical. The Boers, he said, were getting out of hand, and demanding the execution of Jameson. He was certain the Transvaal would insist upon the disarming of Johannesburg before negotiating, although he admitted the Johannesburg people wanted the safety of Jameson and his men guaranteed first; otherwise, they would fight.

Between Saturday and Monday the high commissioner made no effort to inform himself fully of the conditions, though he could and should have learned these, if necessary from Jameson himself. As stated, his first official interview with Kruger was on Monday, January 6th. After this meeting he despatched another message to Chamberlain.

Robinson had expressed to Kruger his regret for the Raid, and thanked the Boers for their moderation. Kruger had definitely stated that Johannesburg must disarm unconditionally and would say nothing about the prisoners. Furthermore, he would allow only twenty-four hours for his ultimatum to be accepted. Without further investigation, Robinson accepted Kruger's dictate and advised Johannesburg to disarm.

Chamberlain wired back his approval of Robinson's procedure up to this point.

Many of the Reform Committee suspected that there might be a trap concealed under the Boer offers; at the same time, we had come to realize that a struggle would be hopeless. When Sir Hercules

sent us a further telegram stating that we would forfeit all "claim to sympathy from Her Majesty's government . . . as the lives of Jameson and the prisoners are now practically in their hands," we felt there was no alternative to submission. As we trusted entirely the assurances of the high commissioner that we should be fairly dealt with, we did not insist upon any written guarantee of safety. At that time we did not know the terms of Jameson's surrender.

January 7th, Robinson wired Chamberlain:

I HAVE JUST RECEIVED A MESSAGE FROM THE REFORM COMMITTEE RESOLVING TO COMPLY WITH THE DEMAND OF THE SOUTH AFRICAN REPUBLIC TO LAY DOWN THEIR ARMS, THE PEOPLE PLACING THEMSELVES UNRESERVEDLY IN MY HANDS IN FULLEST CONFIDENCE THAT I WILL SEE JUSTICE DONE THEM.

The next day he put himself even more definitely on record: "I will confer with Kruger as to redressing the grievances of the residents of Johannesburg."

In a further cable of the same day he explained his position more fully: "I intend to insist on the fulfillment of terms as regards prisoners and consideration of grievances."

After he had been informed that the Boer government believed the Uitlanders had not given up all their guns and ammunition, he told the Executive Council that the onus rested on the Transvaal government to prove guns and ammunition were still being concealed, and that, if any hostile step were taken before this had been clearly demonstrated, "I should consider it a violation of the undertaking for which I had made myself personally responsible to the people of Johannesburg, and I should leave the issue in the hands of Her Majesty's government."

No words could have more plainly stated Robinson's intention at that time to stand by his agreement with us.

On January 6th an ultimatum was delivered to us from Sir Hercules by Sir Jacobus de Wet, the British agent, and Sir Sidney Shippard, administrator of Bechuanaland. It amounted to a demand that we surrender our arms; otherwise, we could not claim any sympathy

either from the British government or from the rest of the world; the lives of Jameson and his men would be forfeited.

Bitter as was the decision, we determined to surrender. De Wet assured us over and over that this was the advice of the high commissioner and also of the Queen and that if we complied with their demand, "not a hair of our heads would be touched."

Later de Wet stated this was merely his private opinion, but at the time he used every argument to induce us to give up our arms.

January 7th, de Wet and Shippard addressed the crowd from the balcony of the Rand Club, asking them to accept the ultimatum. Shippard made a particularly good speech, again promising that, if the arms were given up, Jameson and the Reform leaders would be saved.

Wednesday, January 8th, eighteen hundred guns were handed in. The Boers angrily charged us with bad faith and said there were many more. We told them they were entirely mistaken; that at the most we never had possessed more than twenty-seven hundred and their assumption that we had thirty thousand was erroneous. Furthermore, we had no artillery to amount to anything. They were still suspicious, going so far as to search the lowest levels of the mines.

This was the case of "the engineer hoist with his own petard" since the Boers' estimate of the number of guns in the possession of the Reform Committee was based upon the intimation Sammy Marks had been given by me.

Johannesburg was rapidly returning to normal. The wives of the mine workers went back to the mines, the Transvaal police once more took over the town, the military companies were disbanded, the Committee began to catch up on sleep.

The Boer officials had let drop meaningful remarks about arresting the ringleaders of the conspiracy. I assured my wife, however, that Great Britain could not allow this after having made promises of protection. We refused the offer of Simpson, the surveyor for the Consolidated Gold Fields Company, to supply the four leaders with horses to take us to Natal should the threat of arrest become imminent.

Up to the last moment I believed we were in no danger, but on

Thursday evening, January 9th, after the Boers were finally convinced they had secured all the guns, they began to round us up. Kruger issued a proclamation of amnesty for all but the "chief offenders, ringleaders, leaders, instigators, and those who have caused the rebellion at Johannesburg and suburbs." We were to be arrested immediately. They had no difficulty in picking out their victims since we had obligingly handed over our membership list.

I was at Heath's Hotel when, at quarter to nine in the evening, Lieutenant Pietersen sent up his card. I knew what this meant. I scribbled on the back of the card: "If you promise that I will not be handcuffed or submitted to any indignity, I'll come down. I'll blow out the brains of the first man who lays hands on me."

He sent back word that, on his honor as a gentleman, he would observe these conditions.

With my gun in my pocket, I descended to the lobby. Tossing it on the bar, I said, as debonairly as I could under the circumstances: "Let's have a drink together, Lieutenant. It may be the last one I'll get for a long time."

CHAPTER NINETEEN

The Trial

CHARGED WITH HIGH TREASON—TAKEN TO JAIL—NO FIT PLACE FOR “GENTLEMEN”—THE WHIMS OF JAILERS—GEORGE FARRAR MAKES A GOOD HOUSEMAID—MEASURES FOR RELEASE—MY WIFE PAYS A VISIT TO OOM PAUL—THE TRUTH ABOUT THE RAID—PRELIMINARY HEARING—OUT ON BAIL—THE GUARDED HOUSE—A CASE AGAINST SIR HERCULES—INDUSTRY PARALYZED ON THE RAND—A GRIM JUDICIAL FARCE—CONDEMNED TO DEATH

J had the distinction—if it could be so considered—of being among the first arrested.

“What’s the exact charge, Lieutenant?” I asked Pietersen.

“Inciting to rebellion and high treason,” he gravely replied.

“That has a serious sound. Well, there’s nothing to do about it. Let’s go,” I said resignedly.

A closed carriage waited in front of the hotel, and we climbed into it. The driver touched his horse and at once we rattled away over the red dirt streets to the Johannesburg jail. For several hours thereafter carriages straggled up to deposit hapless committee members who greeted each other with mock gaiety. The last victim of the night’s roundup was Colonel Frank Rhodes, who appeared at two-thirty in the morning.

About an hour later a file of mounted police wheeled into position in front of the jail. By the flickering light of candles, lanterns, and lamps, we re-entered the carriages. The police deployed around us as we moved off through sleeping Johannesburg to the Park Station, where a special train was waiting to take us to Pretoria.

Many of the prisoners were burdened with huge bags and rugs—as much luggage as they would have taken on a holiday trip. Unfortunately, it had never entered their heads that they would have to be their own porters. Since I had only one small bag and a pocketful of chocolate, with which my wife had thoughtfully provided me, I could not refrain from joking them about their elaborate preparations for a week-end visit to Pretoria.

I have heard that there were about two thousand Boers laagered along the route, and felt some apprehension should they learn the identity of the passengers in the train. Their only acknowledgment of our presence, however, was to hail us derisively as the "New Transvaal Volksraad."

We were more fortunate than we realized at the time. Those of the Committee who were not taken into custody until the following morning endured real abuse. A crowd of vindictive Boers met them at the Pretoria station, and a shower of stones and brickbats forced them to make the last few hundred yards to the jail on the double-quick. Old Captain Mein, who could not keep up with the others, suffered the most in running this gauntlet.

Pretoria was in no way prepared to receive political prisoners. There had never been any; consequently, the officials had to put us in the jail for ordinary criminals, mostly negro.

Just as day was drearily breaking, we were ushered into the brick enclosed courtyard. On one side of the gate was the guard room; on the other, the jailer's house. Lining the inside of the walls were the narrow cells. On eagerly asking where Jameson and his staff were quartered, we were shown a small building to the right of the entrance some distance from our cells. Having come first, the Raiders were best served, since theirs was the only building with windows. We were told that we could have no communication with them; neither Raiders nor Reformers were permitted to cross the chalk lines around what was already known as the Jameson cottage.

After having been assigned to our separate cells, we were lined up in the yard and conscientiously searched. Phillips, Farrar, Rhodes, and I were then placed in a small cell twelve feet square, which reeked indescribably of the Kaffir prisoners who had previously occupied it. The only ventilation was through a narrow grille over the door. The earthen floor was vermin-infested; almost covering it were four filthy canvas cots, two of them bloodstained. I shuddered at the sight and smell, but managed to pull myself together sufficiently to despatch a cheery telegram to my wife.

The corrugated iron sheathing caught the heat from the semi-tropical sun and retained it throughout the night. The humid and fetid air made rest impossible. To make conditions worse, I had been ill for some time with Zambesi dysentery. The first three nights we were locked in from six to six. Then the prison doctor insisted that the door of our cell, which led into a small inner court, should be left open at night. This afforded us some slight relief.

The influx of sixty-four prisoners at one time crowded the jail to capacity. Among these sixty-four there were seven Americans, twenty-three English, sixteen South Africans, nine Scotchmen, one Welshman, one Turk, seven from other countries. In one cell, twenty-two by fourteen feet, were herded thirty-five of the Reformers. When the outer door was shut at night, they had no air except what passed through a narrow opening into the inner Kaffir quarters. Save for a narrow gangway down the middle, the floor was covered with small mattresses.

Sanitary arrangements were entirely lacking inside the cells; outside, they were little better. There was a tap in the yard, and an open furrow through which ran a noisome trickle of town water. This had to serve as the common washroom for the two hundred and fifty inhabitants of the jail, one hundred and fifty of them black. It was a miracle that we did not all succumb to typhoid.

My wife's thoughtfulness stood the four of us in good stead. We munched chocolate as we tried to accustom ourselves to our new surroundings. No food was served us until noon. For the first few days our sole diet was the same as that provided for the Kaffirs. At six in the morning when the cell was unlocked, tin pannikins of mealie meal, as they called corn meal, were set in rows in the yard.

Near by was a bucket of coarse salt which we had to crush with stones on the cement steps before it could be used. Dinner at twelve was coarse, tasteless, boiled meat, and half a pound of bread. Supper at five was again nothing but mealie meal. What little appetite we could muster for this disgusting pap was not sharpened by encountering Kaffir hairs in the food.

Several of us were soon in such bad physical condition that arrangements had to be made for better food. Our lawyer, J. W. Sauer, eventually succeeded in securing permission to have our meals sent in from the Pretoria Club at irregular intervals. We had to pay for this luxury, of course.

Du Plessis, the head jailer, a cousin of Kruger, himself admitted that the prison was no fit place for "gentlemen." Nevertheless, he was stern and strict, even going so far as to have us searched whenever he thought it expedient. Prison regulations varied from day to day. Our jailers were subject to whims, but bribery of one kind or another usually produced amelioration of some particularly abhorrent regulation. Sometimes the prisoners were confined to their cells; sometimes chalk lines marked bounds beyond which they might not step; sometimes no visitors would be admitted.

During the first week of our imprisonment my sister Betty secured a visiting permit from the landrost and came bearing several green-lined umbrellas. These were a special boon because the temperature often rose to 105° in the shade. Moreover, the fact that Pretoria lies in a basin makes its climate more enervating than that of Johannesburg, which is on the high veldt.

The days passed with wearisome slowness. We were too restless to spend much time reading or writing letters. Marbles became a favorite pastime. There was little opportunity for exercise, although the pedestrian English—when allowed—walked indefatigably round and round the compound. Captain Mein increased his reputation as a raconteur, and was usually surrounded by groups listening to his illimitable store of western mining anecdotes.

During the daytime most of us were to be found attired in pajamas and dozing torpidly in the few feet of shade available. Lace was the only one to keep up appearances; each morning he sedulously clad himself in his brown suit, pink shirt, and straw hat. For a time

it was rumored that the prison authorities intended to humiliate us by putting us in prison garb. This alarmed some of my fellow prisoners more than it did me. I told them that the worse treatment we received in that respect, the more flagrant the violation of the conventional treatment of political prisoners, the greater would be the sympathy aroused for us throughout the world. The Boer government evidently reconsidered their intention and prison garb was not inflicted upon us.

The receipt of small comforts from home aroused disproportionate pleasure. My own misery was alleviated somewhat when my wife sent me a trunk containing linen, flea powder, ginger snaps, Shakespeare, beef essence, and soap.

As time went on, the prison regime became less severe. Ordinarily we were allowed to receive visitors daily between two and four except on Saturday, which was supposedly cleaning day, and on Sunday, which was holy. These guests brought us news from the outside world.

Business was said to be practically suspended on the Rand, most of Johannesburg's leading men being in jail. Our property had been put under interdict. The Johannesburgers had sullenly watched Commander Piet Cronje's shaggy-faced Boers parade through their town. These were the same men who later proved themselves such valiant soldiers in the Boer War.

The report came to us that the Hollanders were more rabid than the Boers against us. Kruger had proclaimed an amnesty to all but the "principal criminals," and asked the inhabitants of Johannesburg to let him go before the Volksraad with the motto: "Forgotten and Forgiven."

Kruger had finally agreed with the high commissioner that Jameson and his officers should be sent to England for trial instead of being summarily shot as at first had been threatened. On January 19th they left for Natal, and we heard later that they were cheered along the way. Sir Hercules, his task only partially accomplished, had returned to Cape Town five days earlier without deigning to take cognizance of our plight.

Kruger was reported to have said, "I would pay more heed to a

petition from fifty of my burghers than to one from the whole of Johannesburg!"

The high commissioner had practically ceased negotiations after securing Jameson's release. On January 14th he notified Chamberlain that he was leaving Pretoria. Chamberlain cabled back that he was perplexed because nothing had been done about the reforms or the Reformers. He said it was Robinson's duty to use "firm language": "Send me a full report of the steps that you have already taken with regard to this matter, and of the further action that you propose."

Robinson replied that nearly all the leading Johannesburg men were in jail charged with treason, the cases would be tried, and he would regard it as ineffectual and impolitic to urge any reforms at the moment.

Chamberlain's reply was another order for Robinson to resume negotiations at once. Robinson excused himself on the ground that we were being treated well, and were represented by able counsel. "The [Transvaal] Government seem acting within their legal rights, and I do not see how I can interfere." The next day he stated definitely, "No promise was made to Johannesburg by me as an inducement to disarm," and that between himself and Kruger, "the question of concessions to Uitlanders has never been discussed."

Robinson had been in Pretoria for ten days. He had not gone near Jameson. The only information he had requested was statistics as to the number of prisoners, of killed, and of wounded. He had made no effort whatever to get in touch with the Reformers, either personally or through his staff. Moreover, it had been his representations to Chamberlain as to Jameson's extreme danger that had induced us to disarm, and we had received by messenger his assurance of protection for ourselves. We realized fully that the mental vigor of the high commissioner was on the wane and that he was ill; nevertheless, in my opinion there has never been a worse betrayal of trust by a high official of the British government than was shown by him at the time of the Raid.

It has always seemed to me ironical in high degree that, for his eminent services, Sir Hercules should shortly after have become Lord Rosmead.

As soon as Jameson left for England to be tried, we four leaders were moved into his cottage. In one of its two rooms we slept; the other we used as a sitting room. Farrar, driven by a desire for cleanliness, kept house for us, and was so efficient in his domestic role that Colonel Rhodes offered to hire him as a housemaid if they ever got out of jail. It seemed to be a pleasant diversion for Farrar to tidy up our quarters, so I humored him. No valet has ever proved as efficient as my multimillionaire valet, George Farrar. Whenever my wife visited me, he found a sympathetic listener; she told him she had had to cope with the same problem. She also told us more of conditions outside and laughingly commented on the Boers' careful scrutiny of her handbags for possibly concealed cannon when she arrived at Pretoria. Her husband had acquired a reputation as an adept in gun smuggling.

From the time we first went to jail, pressure and influence were brought to bear on Kruger from all sides to effect our release. With the exception of the four leaders and Fitzpatrick, secretary of the Reform Committee, who had been added in place of the absent Leonard, the rest of the Reformers, after nearly three weeks' incarceration, had been let out on bail of \$10,000. Naturally they were not allowed to leave Pretoria before the trial.

As soon as Secretary of State Richard Olney heard of my arrest he cabled Manion, American consul at Johannesburg, to take instant measures to see that I received fair play. Since my wife felt that he had not accomplished anything towards that end, she decided to take a hand herself. Accordingly, she composed a cablegram which she despatched under my name, January 30th, to Senator John P. Jones, of Nevada, asking him to submit copies to Generals Miles and Schofield. All three men were influential family friends.

She knew that any concern I had for my personal safety had not allowed me to forget the question of Uitlander grievances. The cable began with the statement, "The Transvaal is a small unenlightened retrogressive community, under the government of a narrow oligarchy, giving a bad, inefficient administration; monstrous monopolies; corruption rampant." It continued with a more detailed description of the condition of the Uitlanders, and pleaded that our government urge the granting of our demands and the fair treatment

of the prisoners, particularly the American ones. "First urge the reasonableness of our claim; then warn the Transvaal. . . . Urge our government to act immediately. . . . Enlist sympathy in our favor."

This cablegram was given wide publicity in America through the Hearst and other newspapers. There were many meetings of mining engineers throughout the United States, urged by my old friend Dr. R. W. Raymond, secretary of the American Institute of Mining Engineers, and the result of the activity of these friends was a deluge of demands on Secretary Olney to take action in my case. The State Department finally issued a notice through the press to the effect that the files were being swamped by petitions, and said that everything possible would be done by the government without any further petitions, to which Olney added that he would not feel "justified in making any personal appeal to the President of the South African Republic on behalf of Mr. Hammond." The Senate and the House of Representatives, however, felt less diffident. Almost the entire body united, May 1st, in a petition to Kruger to pardon me, saying they would esteem such action an especial compliment to Congress as well as to the people of the United States.

One amusing, and to me most heartening, aspect of this sympathy at home was occasioned by the offer of Texas miners to rescue me by force if the government would be so kind as to provide a transport for them.

Sir Julian Pauncefote, British ambassador at Washington, had already suggested to Olney that it might be a good idea to put my case unofficially before Lord Salisbury, the British prime minister, who would then undoubtedly do what he could for me. Olney afterwards told me that he had believed this indirect method of proceeding in my case might help to ease the strained situation arising out of the Venezuela crisis.

I received tangible evidence of British sympathy when Sir Jacobus de Wet brought to the prison a cablegram from Salisbury, offering British protection to me and other American prisoners. I told de Wet to express my appreciation and thanks, and then added: "British subjects don't seem to be receiving any great amount of support at home. Since I recognize that my own government is equally powerless, I prefer to go it alone."

Towards the end of January my wife, who was seriously ill, decided to beard Oom Paul himself. It was common knowledge that, despite his gruff manner, he had a kind heart. She had the idea that they would find some ground for mutual understanding. My old friend Sammy Marks, who had tried to pump me so unsuccessfully a few weeks before at Johannesburg, accompanied her. They found the President sitting in his parlor with other Boers who regarded her with a scowl.

Kruger was filling his pipe from a moleskin pouch, and, on Mr. Marks's introduction, shook hands with my wife. He then lit his pipe and puffed at it as he solemnly regarded her.

She tells the story in her own diary:

Mr. Grobler, the pleasant faced young man, grandson and secretary to the President, observing that I was trembling with fatigue and suppressed excitement, offered me a chair. We sat opposite each other, the President in the middle. I spoke slowly, Mr. Grobler interpreting. This was hardly necessary, President Kruger answering much that I said before it was interpreted. I could understand him perfectly from my familiarity with German and especially Platt-Deutsch.

I explained that I had not come to talk politics. "No, no politics," interrupted the President in a thick loud voice. Nor had I come to ask favour for my husband, as I felt assured that the honesty of his motives would speak for themselves at the day of his trial; but I had come as a woman and daughter of a Republic to ask him to continue the clemency which he had thus far shown, and to thank Mrs. Kruger for the tears which she had shed when Johannesburg was in peril.

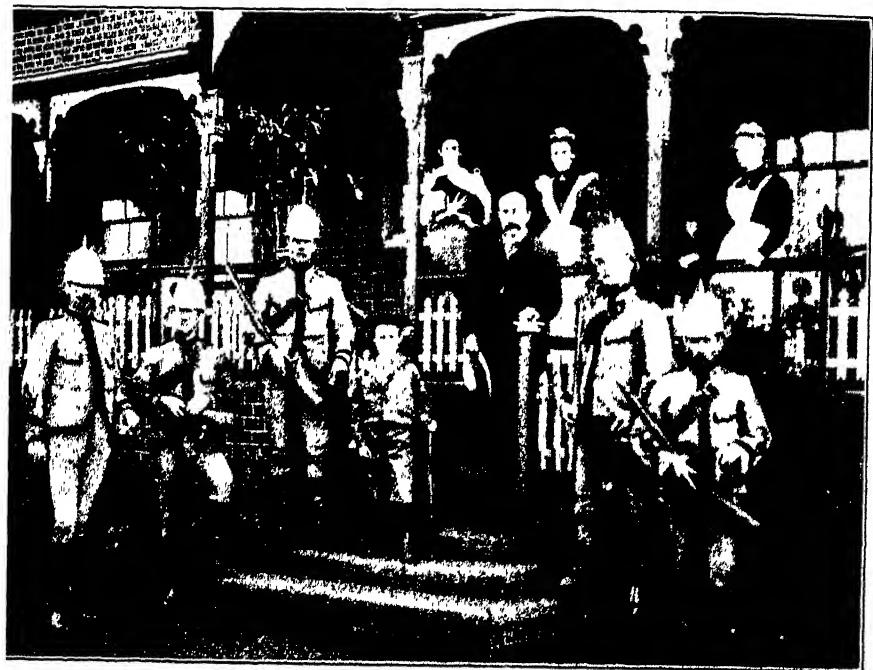
President Kruger relaxed a little. "That is true she did weep." He fixed me with his shrewd glance. "Where were you?" he asked abruptly.

"I was in Johannesburg with my husband."

"Were you not afraid? What did you think I was going to do?"



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UNDER GUARD AT JOHANNESBURG

"I hoped that you would come to an understanding with the Reformers."

His face darkened.

"I was disappointed that the Americans went against me," he said.

Sammy Marks rose and left the room. I was seized with one of those sudden and unaccountable panics and, from sheer embarrassment—my mood was far too tragic to admit of flippancy—blurted out, "You must come to America, Mr. President, as soon as all this trouble is settled, and see how *we* manage matters."

Kruger's face lighted up with interest.

"I am too old to go so far."

"No man is older than his brain, Mr. President," and Kruger, who knew that in all the trouble he had shown the mental vigour of a man in his prime, accepted my praise with a hearty laugh. This was joined in by the Boers from the other end of the room.

Mrs. Kruger refused to see me, and I liked her none the less for her honest prejudice. I stood to go. President Kruger rose, removed the pipe from between his teeth, and, coughing violently, gave me his hand.

Mr. Grobler escorted me to the gate. "Mrs. Hammond, I shall be very glad to serve you in any way possible to me!" he said with courtesy.

"Then will you say to Mrs. Kruger that I am praying to the same God that peace may come?"

Mrs. Kruger—Tante Sanne, as the Boers called her—relented enough later to see the wives of several of the Johannesburg Reformers. When they asked her to use her influence in behalf of the prisoners, she replied: "Yes, I will do all I can. I am very sorry for you all, although I knew that none of you thought of me that night when we heard that Jameson had crossed the border, and we were afraid the President would have to go out and fight, and when they went and caught his old white horse that he had not ridden for eight years. But all the same I am sorry for you all."

Bits of information about the Jameson Raid had trickled into prison through visitors and occasional newspapers. From these I was able for the first time to piece together in detail what had happened outside Johannesburg during those eventful days of late December and early January. Subsequently I became acquainted with the full case for and against Jameson.

General Gordon once said, "England was never made by her statesmen; England was made by her adventurers." Jameson knew only too well the exploits of Lord Clive and other famous adventurers of British history. Recalling the astounding results of his own audacity in the First Matabele War, he now decided to allow his personal motives to dominate his course of action; he impetuously subordinated the welfare of the people of Johannesburg to his overweening ambition.

Despite our explicit instructions to Jameson, which he had received from both Heaney and Holden, at three o'clock in the afternoon of Sunday, December 29th, he paraded the troops at Pitsani, and read to them our letter of invitation. Then he explained that he did not intend any hostilities; he meant only to help the inhabitants of Johannesburg in their extremity and to ensure the granting of their just demands.

Such was Dr. Jim's magnetic personality that he had no difficulty in securing the adherence of his five hundred troops to his mad enterprise of rushing to the rescue of the women and children of Johannesburg, or, as Alfred Austin, poet laureate, designated them—"the girls of the gold reef city." Even Holden and Heaney threw in their lot with their hero, Jameson, and accompanied the column. Colvin, Jameson's biographer, says that after Heaney had delivered his message, Jameson paced back and forth and then said, "I'm going."

"Thought you would," said Heaney.

"And what are you going to do?" said Jameson.

"Going with you," said Heaney.

"Thought you would," said Jameson.

The enthusiasm among the Raiders outran their caution. The Johannesburg Committee had given careful instructions to Jameson to cut the wires to Pretoria before he started. The soldiers assigned

to this task were so exhilarated from the effects of the canteen's having been thrown open to celebrate the departure that they found themselves unable to distinguish between certain wire fences and the telegraph lines; by this most deplorable error the line to Pretoria was left intact, while that to Johannesburg was cut. The Boers were thus informed of Jameson's departure for Johannesburg only a few hours after he had left Pitsani; it was eighteen hours before any information reached us.

At six-thirty on this Sunday evening the Pitsani column started with five hundred troopers (not the fifteen hundred he had promised, nor the fifteen hundred rifles he was to bring to the Reform Committee), and at five the next morning were joined by the column from Mafeking at Malmani, thirty-nine miles from Pitsani. In addition there were about seventy Kaffirs to act as carriers, and to drive the eleven carts with provisions and ammunition for the eight Maxims, the two seven-pounders and the one twelve-and-a-half-pounder.

The column followed the road or rather cart track, which led from Malmani to Krugersdorp. On Tuesday morning it reached the first stage station and after a short rest the march was resumed.

Wednesday at noon the column reached the outskirts of Krugersdorp, the western terminus of the railway line running along the Rand through Johannesburg, only twenty-one miles away. Scouts reported that Boer troops were holding a strong position in front of the ridges which were honeycombed with mine pits and dotted with tailing dumps.

Jameson was now forced to abandon his cherished but inevitably futile hope of reaching Johannesburg without bloodshed. When Willoughby reached Krugersdorp a few shots were exchanged with the Boer forces. Except for occasional sniping, which caused a few casualties among the Raiders, the Boers made no attack.

When Jameson ascertained that the Boers were defending the road we had laid out for him, he consulted with Willoughby as to what should be done. While this discussion was going on, they observed two youths, apparently from a neighboring farm, who had been viewing the progress of the battle with interested eyes. Thinking that a native could logically supply the most accurate topo-

graphical information, Willoughby asked, "What's the best road from here to Johannesburg?"

One of the young men, a loyal Boer, replied in perfect English, "If you follow this road to the right about ten miles you'll come to Doornkop, and from there you can't miss the way." Under ordinary conditions ten miles would have been nothing for the column, but after three days of marching and the recent fighting, men and horses were hungry and exhausted. The troopers dropped in their tracks to snatch what rest they could. Early the next morning the bugler sounded boots and saddles. Willoughby took the road to the right—straight into the Boer trap.

The circle of rocky hills surrounding Doornkop was already occupied by Cronje's troops. As Jameson's column defiled into the swampy vlei, the Boers fired down upon them. After an hour's fight, eighteen of the Raiders had been killed and forty wounded. Jameson, realizing that he was hopelessly outnumbered and outmaneuvered, ordered the white flag hoisted. He then had Willoughby send Cronje, commandant of the Transvaal forces, the following:

We surrender, provided that you guarantee us safe-conduct out of the country for every member of the force.

The commandant answered literally as follows:

Officer—Please take note that I shall immediately assemble our officers to decide upon your communication.

About thirty minutes later Willoughby received the following:

I acknowledge your letter. The answer is that, if you will undertake to pay the expense which you have caused the South African Republic, and if you will surrender with your arms, then I shall spare the lives of you and yours. Please send me a reply to this within thirty minutes.

P. A. CRONJE,
Commandant, Potchefstroom

Willoughby immediately replied, accepting the following conditions:

I accept the terms on the guarantee that the lives of all will be spared. I now await your instructions as to how and where we are to lay down our arms. At the same time I would ask you to remember that my men have been without food for the last twenty-four hours.

Thereupon the guns were surrendered to the Boers. Later Commandant Malan, though well aware of the conditions upon which they had surrendered, told Jameson that he would not guarantee his life nor the lives of the other leaders, but would hand them over to General Joubert for judgment.

It was then, of course, too late to offer resistance, and Jameson and his officers were escorted to Pretoria as prisoners of war.

From a study of the evidence available, I am convinced that the Boer intent at the time was to secure Jameson's surrender as simply as possible, and that the later deliberate suppression of the terms was Kruger's idea of diplomacy in dealing with us in Johannesburg.

After the Raid, Willoughby and some of his officers lost their army commissions. Willoughby tried to defend himself by suggesting that Chamberlain, as colonial secretary, knew in advance of the proposed invasion and approved it. The story was based on certain telegrams exchanged between Dr. Rutherford Harris and Chamberlain relative to the transfer of Bechuanaland to the Cape government.

A whispering campaign was carried on by Chamberlain's enemies in an endeavor to implicate him. Rhodes definitely acquitted Chamberlain at the Parliamentary Inquiry; furthermore, in the many talks I had with Rhodes afterwards, he never even hinted that Chamberlain had had anything to do with the Raid. It is preposterous to assert that a statesman of Chamberlain's acumen could have been party to the Raid. He would have realized how greatly that would embarrass Great Britain in her foreign relations. But undeniably both Chamberlain and the high commissioner did know that Jameson had troops at Pitsani. I feel satisfied that Chamberlain has been completely exonerated from complicity in the Raid.

After Doornkop, Jameson was exceedingly bitter against the Reform Committee. He alleged that we had failed to send troops to his assistance, and that the Raid would not, as Rhodes put it, have "gone off like a damp squib" had we fulfilled our part of the bargain.

To the impartial reader the role played by Jameson in what might be described as a Comedy of Errors, had it not had such tragic consequences, fixes upon him the responsibility of the "damp squib."

According to our understanding with Jameson, he was to come to us. It was never for a minute contemplated that we should go to his assistance. Furthermore, there was never at any time any indication from Jameson that he required support from Johannesburg. His own telegram of December 27th to his brother—"Let J. H. Hammond telegraph instantly all right"—proves that he understood he was not to start until I had given the word.

In the preceding chapter I have carefully shown what steps were taken by us in Johannesburg to prevent his starting, how he utterly disregarded both the commands of Rhodes and the proclamation of Sir Hercules Robinson, and lastly how, through the inexplicable stupidity of his chief military officer, Willoughby, he was captured.

The case of the Reform Committee against Jameson's accusation was summed up in the February 17, 1896, issue of the *Johannesburg Times*, while we were still imprisoned. It read in part:

We would again . . . direct the attention of the [Transvaal] Government to the conduct of the Reformers when Dr. Jameson crossed the border. They kept the people from assisting the filibuster, at the danger of being lynched by their own supporters, sacrificed their reputation, their popularity, their power, and the cause so dear to their hearts. They swore allegiance to the Transvaal flag, they put down disorder with a strong hand, they prevented a shot being fired, although the Boer patrols fired in defiance of the armistice. When they could have easily escaped during the two days of confusion following the Jameson invasion, they waited quietly, and when called to lend their powerful assist-

ance, in persuading the armed Uitlanders to lay down their weapons, they did so faithfully and effectively. . . . Not one of the men now in gaol had to be chased, or made the slightest attempt to escape. And no one supposes that with their wealth they could not all have devised some means of getting away if they had wanted to. They stood like men, and deserve some consideration from the Government, from Johannesburg, and from the world.

In time Jameson came to admit that he might not have been entirely free of blame for what had happened, though he failed to make a public statement to that effect.

Sir Robert Williams, one of his intimate friends, met Jameson at the Burlington Hotel in London after his release from Holloway Prison and asked him, "Well, Doctor, whose fault was it that the thing failed?"

"Everybody's fault," Jameson answered, "mine included."

If I may have seemed too hard on Jameson in the criticisms I have just made on his conduct in the Raid, I should like to temper this by saying that, for the man himself, I always had the greatest admiration and affection.

Dr. Jim was equally ready to take up the scalpel or the sword. During the Boer War, he heard that one of the bravest of his old Rhodesians had been badly wounded and could not survive without a surgical operation. Although himself in ill health and worn out by fatigue, the doctor jolted all night over the veldt in a Cape cart drawn by two scrawny mules. He arrived at dawn and performed a long, difficult operation that saved his former comrade's life. This action was done in the same quiet manner with which he used to take from his belt the last piece of biltong and give it to a hungry sentry in the days when he was pushing the frontier north of the Zambesi. Instances of this kind endeared Jameson to the people of Rhodesia.

During those prison days the whole Jameson affair was a subject for speculation rather than certain knowledge. My wife graphically

describes the preliminary trial in her book, *A Woman's Part in a Revolution*, from which I quote:

Monday, February 3rd. The preliminary trial of the Reform Committee prisoners was called this morning. The hearing was in the second Raadzaal. Although the accommodation for the public was limited there was a large crowd of Johannesburgers present.

Shortly before ten o'clock an armed escort marched up to the jail for Messrs. Hammond, Phillips, Farrar, Fitzpatrick, and Colonel Rhodes. The other Reformers stood in a bunch at the entrance of the hall. All the principal government officials were present. Sir Jacobus de Wet appeared, accompanied by Honorable J. Rose-Innes, Q. C., one of the leaders of the Cape Colony bar, who had come from the Cape to watch the case on behalf of the Imperial Government.

Punctually at ten the State Attorney, Dr. H. J. Coster, took his seat, and, beginning with my husband's name, called the accused into court.

The sixty-four prisoners were assigned to rows of cane-bottomed chairs in the northwest corner of the building. The proceedings were in Dutch, and continued throughout the day. With the exception of a few, none of the Reformers understood Dutch. The hall was without ventilation, and overcrowded, and sixty-four more bored and disconsolate-looking men, I believe, were never brought together. Some of them fanned vigorously with their hats, others gave themselves up to circumstances and sank into apathy. On the second day, profiting by experience, fans and paperbacked novels were brought into the court room by the arraigned.

There were also present many prominent officials of the Transvaal Republic.

Since the proceedings were in Dutch, we had little idea of what was going on. The testimony of each witness was read back to him

in a free translation by the interpreter. Thereupon he was asked to sign the notes of his evidence, the accuracy of which he had to take on faith.

The second day of the hearing, I was too ill to attend. My wife, who immediately noticed my absence, came at once to the prison.

After one look at me, she said, "I'm going to get you out of here, Jack."

Feeling too miserable to be moved, and in dread lest hospital conditions be even worse than those to which I had become more or less accustomed, I replied, "I'd rather stay here than go to the prison hospital."

"I've a better plan than that," she answered reassuringly, and hurried off. So successful was her intervention with the Transvaal officials that, before the end of the day, I had been moved into a small cottage in Pretoria. My wife, her maid, and my sister Betty were permitted to be with me. Captain de Korte, a Dutch officer serving with the Boers, lived with us in the house. Thirteen men formed the exterior guard.

Although living conditions were vastly improved by this transfer, prison regulations remained in effect; surveillance was close. All letters and telegrams were censored by Captain de Korte, and all visitors had to have permits. The ladies were allowed to leave the house only twice a week. De Korte, although strict, was most considerate, even to the point of wearing civilian clothes instead of his uniform in the house. The guards were careful to see that we did not escape. One soldier remained always at the bedroom door while we slept, and two others were posted just outside the window on the veranda. My wife and I could never exchange a private word. Sometimes we wrote a message which would be burnt at the bedroom candle as soon as read.

The illness which I had contracted on my trip to Rhodesia had been aggravated by my distressing experiences in the jail, and I was exceedingly weak. A few steps were sufficient to exhaust my strength; I appeared to be growing steadily worse. In great anxiety of mind, my wife summoned Dr. Murray, our family physician, from Johannesburg. His representations of my state of health in-

duced the Boer officials to give permission for me to drive out daily, but I was too ill to avail myself often of the privilege.

Since I did not improve, my wife decided I ought to be taken to Johannesburg where the higher altitude produced a more bracing climate. To everybody's surprise she secured consent to remove me to my own home. At the same time Phillips, Farrar, and Frank Rhodes, who also had suffered in health, were transferred from the Jameson cottage, with its mildewed walls and damp floor, to new quarters just outside Pretoria.

Each of us was to pay the entire cost of his detention and to deposit \$50,000 in sovereigns as bail. Since it would have taken me too long to raise the money elsewhere, I accepted Barnato's kind offer to supply the necessary currency.

With his usual impetuosity, Barney was causing a great furore at the time by being one of the first to threaten to close down or sell his mining properties. His explanation was that it was no use trying to operate them with all his associates in prison.

The prospect of getting out of Pretoria gave me strength enough to survive the train journey. De Korte and nine soldiers accompanied us and at the Johannesburg station turned us over to a new guard. These local Vrywilligers hurried us off before I could even exchange a word with the members of my engineering staff who were there to meet me.

I was kept in even closer custody at my own home in Johannesburg than had been the case at Pretoria. At night there were two guards instead of one outside the bedroom door; one was posted at each of the windows, and more were scattered outside. These extraordinary precautions seemed somewhat fantastic in view of the fact that I could not have tottered around the block. When Captain de Korte came to see me without securing a permit, the commander of my guard was so angered that he lodged a complaint.

The same afternoon on which we returned home, February 18th, there was an appalling explosion at Fordsburg, one of the suburbs. Our son, Jacky, then seven years old, had been digging with a miner's polepick in the garden. When extracted from his refuge under the bed, his comment was, "When I was digging in the garden and that terrible noise came, I thought I had dug up hell."

Our superstitious Kaffirs were under the impression that the sun had burst.

Actually fifty-five tons of nitroglycerine had exploded, wounding seven hundred persons, killing eighty, and rendering fifteen hundred homeless. This shocking catastrophe was entirely attributable to the negligence of the Netherlands Railway. Since Fordsburg was the section of town occupied by the poorer Boer inhabitants, there were virtually no Uitlander casualties. Nevertheless, the Uitlanders at once turned over the Wanderers' Club to the homeless and opened subscription lists for relief of the sufferers. In a few hours they had raised \$325,000, the railway supplied \$50,000, while the Boer government contributed \$125,000.

Kruger himself hurried from Pretoria and thanked Johannesburg for coming so nobly to the rescue of the afflicted. Speaking, as he always did, in the manner of a predikant, he chose as the text of his speech, "Blessed are the merciful, for they shall obtain mercy."

In spite of the improved climate and better care, my health failed to improve at Johannesburg. It was finally arranged, on doubling my bail to \$100,000—which my friend Barney again supplied—that I might go to Cape Town for a few weeks pending our trial, with the hope that the sea air would prove beneficial. By this time the members of my guard and I were on such friendly terms that, before we parted, they asked to be photographed with me. I willingly agreed to this request. While we were wishing each other good luck over a bottle of champagne in the garden, the carriages were waiting in front. My wife sent Jacky to hunt me up. He returned with the report, "Papa is playing with his guard outside."

By way of diversion Jacky accompanied me on my trip to Muizenburg, the sea resort near Cape Town. My wife was to follow us next day. On arrival at Muizenburg I joined Joseph Story Curtis, another of the Reform Committee. He had been partially paralyzed as a result of his prison hardships and never recovered sufficiently to stand trial.

Through the kindness of Miss Louise Rhodes, sister of Cecil, I was given the cottage in which Rhodes subsequently passed away.

Fortunately for Jacky, my wife arrived as per schedule. The boy had complained several times a day that his clothes were too small

and uncomfortable. I appeased him temporarily by telling him that he was growing very rapidly and would soon be a man. As soon as his mother came, however, the cause of his discomfort was perceived. It seems I had been putting his trousers on hind part before.

As soon as I arrived I was besieged by queries, "What do you think Rhodes is going to do?" I found that the political enemies of Rhodes were assiduously spreading the report that he had deserted Jameson and the Reformers. This I most emphatically denied, expressing the opinion of the Reform Committee that we were convinced Rhodes had made every possible effort to prevent Jameson's departure from Pitsani.

That Rhodes had resigned as premier of Cape Colony, on January 5th, and had gone to London before our trial, did not in the least indicate desertion of us. We realized that even if he remained in Africa he could be of no help to us, and any attempt by him to influence Kruger would only result in incensing the Boer president. The Committee believed there was some possibility of Rhodes being of service to us in London. This belief was justified by what I learned from Rhodes when I saw him in London for the first time after my release from prison.

Rhodes's reason for leaving South Africa so soon after Jameson's surrender was to attend a meeting of the Chartered Company. He was attempting to re-establish confidence and, in behalf of the investing public, steady the South African securities market, which had precipitously tumbled to practically nothing. I was convinced that Rhodes would return to South Africa as soon as possible and go to Rhodesia to take measures against the Matabele, who had revolted on March 24th because of Jameson's absence in England awaiting trial. This was exactly what Rhodes did. He reached Bulawayo at the end of March, while we were still prisoners, and immediately took measures to suppress the uprising of the Matabele which I have described in a previous chapter.

While I was recuperating at Muizenburg, one of my visitors was Sir Gordon Sprigg, Rhodes's successor as premier. During the course of our conversation, Sprigg brought up the subject of the financial

difficulties of the Cape Railway. There had been a great falling-off in the freight shipped over the road to Johannesburg, owing to the closing down of many of the mines and the rescinding of orders for machinery and supplies.

This gave me a logical opportunity to intercede for the Reform prisoners.

"Sir Gordon," I began, "I feel sure your personal sympathies are with the Reform Movement. I realize also that you have to conciliate Kruger, which puts you in a difficult situation politically. I'm sure, however, that some means must be devised for effecting the release of the Reformers."

Sir Gordon eyed me dubiously. "I deeply sympathize with your sufferings, Mr. Hammond, but I have no authority to act in this matter. My paramount duty is to attempt to bring business conditions in the Cape back to normal."

"That's undoubtedly true," I replied, "but the prosperity of the Cape cannot be dissociated from that of the Transvaal. You know as well as I do why business is paralyzed. I have been authorized to tell you that the Reformers—who, as you know, hold the economic interests on the Rand in their hands—intend to stop the further purchase of Boer properties, close down the mines now operating, and cancel the purchase of large orders of machinery that were to be transported over the Cape Colony Railway lines, the only way to stop this is to secure the release of the prisoners."

"Why," replied Sir Gordon, "that would tend to precipitate a business panic. Coming at the same time as the rinderpest, which has decimated the cattle, it would work untold misery to the people of the country."

. "True, Sir Gordon. On the other hand, the mines could not be operated successfully under present working conditions. These conditions exist because in the past men of your political power have not made full use of their influence with the Boers in behalf of the Uitlanders. We have made an attempt toward reform and failed; now it is up to you to solve the problem."

As the time set for the trial drew near, my health had improved somewhat and I could walk about.

One day after I had returned to my hotel from a walk, a "minister" was announced and, though I doubted that any minister would care to see me, I told the clerk at the desk to send him up. My visitor's face seemed vaguely familiar; but it was not until he had divested himself of his whiskers that I recognized Richard A. Parker, one of my mining staff. Although among those ordered to be arrested, he had succeeded in escaping from the Transvaal in his clerical disguise. His mission at Cape Town was to keep me from returning to Pretoria. In spite of his reluctance to abandon his comrades and, as he expressed it, to show the white feather, I insisted on his taking the first steamer leaving the country. This was in the interest of the Reform Committee rather than out of consideration for Parker's welfare.

In addition to this personal warning, many of my friends in the Transvaal wrote me that feeling against the Reform leaders was intense and that, if I were not assassinated en route to Pretoria, I should certainly be condemned to death upon my arrival. Victor Clement, who was carrying on the operations at the Consolidated Gold Fields in my absence, also vehemently deprecated my return. He suggested that if my illness were to continue the Transvaal government could not forfeit my bail without incurring consular interference. After sentence had been passed, I could then decide whether I should return or forfeit bail. Simpson, another of my engineers, wrote me to the same effect. Even de Korte confidentially urged me by all means to remain away.

Alarm for the safety of the Reformers was increased by the rumor that certain of the more intransigent Boers intended to lynch the leaders before trial. Commandant Henning Pretorius, a prominent Boer official, had visited Cape Colony shortly after the Raid. There he found that the original beam used to hang the five Boers condemned by the British after "Slagter's Nek" had been built into a Boer farmhouse at Cookhouse Drift. He had purchased the beam and brought it back to Pretoria. With sinister intent, the local newspaper, *Volksstem*, then published a description of the 1816 executions, and called on the people to avenge themselves on the Reformers. Chamberlain was informed of this threat; he cabled Kruger that the

president would be held personally responsible for the safety of the Reform leaders. Pretorius thereupon made the excuse that he had brought back the beam to be placed in the National Museum; Kruger increased the guard around the prison.

Without my knowledge my friends had used every argument to induce my wife to prevent my returning to Johannesburg. She says in her account:

Mr. Manion, the Consular Agent, and Mr. R. E. Brown, an American just arrived in Cape Town from the Rand, took me aside and laid the case in all its bare brutality before me. *To allow my husband to return to Pretoria was for him to meet certain death.* If he were not lynched by the excited Boers, he was sure to get a death sentence. Mr. Brown showed feeling as he plead with me to use a wife's influence to save her husband's life. My head was swimming. I could only repeat in a dull, dogged way: "He says his honour takes him back. He is the father of my sons, and I'd rather see him dead than dishonoured."

Somehow I got to my room, and the page-boy stumbled over me at the door some time afterward, and ran for Mrs. Cavanagh. When I felt a little recovered, I put on my hat, and, not waiting for my husband's return from an appointment with Dr. Thomas, I drove to the office of Mr. Rose-Innes. He was not in, and his clerk declared he did not know when he would be in. "Very well, then; I'll wait until he does come in."

I was given a comfortable chair, and a dictionary was dusted and placed under my feet. Mr. Rose-Innes at length appeared. He was greatly astonished to find me waiting for him. I began abruptly: "Dear Mr. Rose-Innes, I am in need of a friend; my distress is so great that I can no longer distinguish right from wrong." I told him everything; showed him the letters which I had received, and, facing him, asked, "What is my duty? I can appeal to my husband for my sake, to save

the life of our child [she was an expectant mother]—and perhaps dissuade him! *My God, it is a temptation!*"

Mr. Rose-Innes sat deep in thought.

"If you think his going back is a needless throwing away of a valuable life," I began, with a timid hope beginning to grow in my heart—"I will chloroform him and have him taken to sea!"

Mr. Rose-Innes leaned forward, and took my hand gently between his own: "Mrs. Hammond, your husband is doing the right thing in going back; don't try to dissuade him. If he were my own brother I would say the same"—and I accepted his decision.

We returned to Pretoria.

Just before my scheduled departure, however, I became so ill that my friends petitioned the Boer government for a stay. The only reply was an abrupt notification from State Attorney Coster to American Consul Chapin that I must be on hand for the convening of the High Court in Pretoria at ten o'clock, Friday, April 24th.

On the eve of the trial Coster agreed with our chief advocate, Wessels, that, if the leaders would consent to plead guilty to the charge of high treason, he would permit the rest of the Reform Committee to plead guilty to a merely nominal offense. Wessels assured us that if we should plead not guilty, there would certainly be a trial of long duration with an inevitable verdict against us. We had also the alternative of claiming there had been an arrangement with the Boer government which had been broken by our arrest. The final choice was to accept Coster's proposal and plead guilty, realizing that conviction in any case was a foregone conclusion.

Many of the Committee objected to admitting guilt, but Coster insisted that, if this bargain was to be made, the pleas would have to be uniform.

So far as the leaders were concerned, we were of one mind in agreeing to accept whatever punishment might be decreed for us in order to exculpate so far as possible the other Reformers, many of whom had been induced to enter the revolution by our example. Coster's strategy in persuading us to plead guilty would be of definite advan-

tage to the Boer government; they would avoid having their dirty political linen washed before an eagerly awaiting world.

Once the arrangement had been reached, Coster and Wessels discussed the form of law under which the case would be tried. The Transvaal courts operated under the Roman Dutch law, save where special statutes had been passed. Coster said the statute law, mild in term, applied to our case, although he qualified this by admitting that the trial judge had the power to rule otherwise. This, our attorney informed us, was extremely unlikely.

Considerable difficulty arose over the choice of a judge to preside at the trial. Three out of the five Supreme Court justices were disqualified because they had acted as emissaries in the preliminary dealings at the time of the Olive Branch negotiations between the Reform Committee and the Boer government. A fourth was admittedly too much of a Boer partisan; the fifth was a liberal and, although it was his turn to preside, he was passed over by Coster—he could not be relied upon to render a sufficiently severe sentence. Consequently the government decided on Gregorowski to conduct the trial. This judge had recently come from the Orange Free State and had been appointed Chief Justice of the Transvaal in place of Kotzé. Gregorowski was so noted for his severe sentences upon all offenders save Boers that he had been given the sobriquet of "the hanging judge."

All these points had been decided upon before I started on my journey from Cape Town to Pretoria with Dr. Scholtz in attendance. Since my name had been telegraphed on ahead, at each station beyond the border many Boer farmers came into the car to satisfy their curiosity about the criminal. By the time we had reached Johannesburg, Dr. Scholtz decided it would be impossible for me to continue the journey. We wired that I would arrive at Pretoria on the following day by the noon train. This accounts for my absence the first day of the trial.

Wessels explained to the court that my illness would prevent my attendance before Monday, and applied for postponement. When this was refused, he pleaded guilty to high treason for the three leaders present, and a copy of this plea was signed by the accused. On my arrival at Pretoria the document was brought to me, and I

affixed my name as evidence of my concurrence in all that had been done.

Monday morning the trial was resumed in the great Market Hall, quickly converted from the dispensing of food to the dispensing of justice. An hour before the trial began a great crowd had assembled at the main entrance, although it was known that admission was by special ticket only. The guards at the gate were so conscientious on the first day that some of the accused themselves would have been turned away had they not been identified.

With the other leaders I made my entrance into a room already packed with jurymen, witnesses, press representatives, and favored visitors, both men and women. On the floor, covered with coconut matting, had been placed long plain forms for the accused, the witnesses, and the officials. Facing the main entrance was a large carpeted dais, raised about a foot from the floor. Green baize curtains had been hastily arranged to produce the proper judicial dignity, while piles of documents and books provided the legal atmosphere. Many women were already on the platform, and it was difficult to find room for late arrivals. Fifty or more local police were scattered throughout the hall to quell any possible disorder.

At the rear of the hall the judge occupied a temporary bench raised a foot and a half above the dais, before which were tables and chairs for the bar. On the left was the witness stand; on the right, accommodations for a supernumerary jury. The press was represented by a large group from the leading European papers.

The prisoners were conducted to seats between the dais and the barricade on the right, and facing the witness box. The acoustics were naturally poor so that, with the exception of the judges and advocates, few of those present could hear what was going forward.

Coster presented the case for the state in a restrained and quiet manner. We were startled, however, when he read into the record the evidence captured from Major White at Doornkop. This was the first inkling we had that the state was in possession of such proof.

At the time of Jameson's surrender at Doornkop the Boers captured Major Robert White's despatch box, containing diaries, notebooks, codes, cipher keys, and worst of all, the letter of invitation

which we had given to Jameson undated on condition that he use it only when so ordered by us. Now, to our astonishment and consternation, we learned that the date of the letter had been filled in as of December 20th, and that Major White, as magistrate in Bechuana-land Protectorate, had certified it as a true copy. Furthermore, while in the jail in Pretoria, he had confirmed his own affidavit. Later he said he did not remember anything about this, but the charge was made that he had made the confirmation in exchange for the return of some of his private papers. We subsequently learned that, without authority and unknown to us, Dr. Wolff had actually filled in the date at Jameson's request.

When Coster finished, Wessels first entered a written statement setting forth the motives which had activated us and explaining why our so-called rebellion had been no more than constitutional agitation. He ended his defense with an eloquent plea for clemency.

To the amazement of all, Coster then jumped to his feet and, in contrast with his previous quiet manner, burst into a violent diatribe against the Reformers. Wessels objected, but was overruled. Coster acted like one possessed. He ran up and down the platform, waving his hands in the air. His voice rose excitedly until the words "Hangen bij den nek!" repeated over and over, warned us that our agreement was to be abrogated. Even with only a rudimentary knowledge of Dutch, we could make out only too well that he was urging sentence under the Roman Dutch law instead of the Transvaal statutes.

At the termination of his harangue, court was adjourned until the following day. It was apparent now that the rumors of a severe sentence were to be uncomfortably confirmed.

The next morning, Tuesday, the town swarmed with burghers. The state artillery was omnipresent and troops were massed in Market Square to prevent any demonstration. The audience was packed tightly into the extemporaneous courtroom. A feeling of ominous suspense pervaded the hall; the atmosphere of agitation was conveyed by a perpetual shuffle of feet, a flutter of fans, subdued whispers, an occasional clank of arms, the constant sound of footsteps passing to and fro in the rear.

Judge Gregorowski took his seat. He smiled slightly as he made

an apparently jocular remark to an attendant. Then, recovering his solemnity, he made the unexpected and significant request that the court be cleared of women.

When the last of them had vanished through the great doors, the judge began to pass in review the evidence before him, making no reference to the statement on our behalf that had been submitted the day before. He reviewed the statute law and gave his reasons for setting it aside in favor of the Roman Dutch law. His voice droned on interminably.

He brought to an end his summing up of the legal aspects of the case about an hour after court had convened. Just as he finished, a small wooden dock, large enough for only four men, was carried in over the heads of the assemblage, and set down before him.

He then stated that the signatories of the Jameson letter were directly responsible for shedding burghers' blood at Doornkop. He was prepared, he said, to pass upon them the only sentence possible under the Roman Dutch law. Whatever hope there might be for mercy must lie in the hearts of the Executive Council and in the magnanimity of the president. Certainly, in no other quarter could there be the slightest grounds for hope.

"Lionel Phillips, George Farrar, Francis Rhodes, John Hays Hammond!" called the registrar.

We were led into the dock. The sheriff called for silence; there was a pause until a complete hush had fallen.

"Lionel Phillips, have you any legal reason to urge why sentence of death should not be passed upon you?"

The firm response was "No." After a pause, Gregorowski carefully adjusted the black cap on his head, and pronounced sentence.

The same words were intoned to Colonel Rhodes and George Farrar, the interpreter repeating them in English until he broke down under the strain. Half-suppressed exclamations of protest and horror began to break forth, in spite of the threatening attitude of the soldiers and attendants.

In no way perturbed, Gregorowski now turned to me. Angered by the Boer treachery to a point where fear could play no part, I looked steadily at the judge and repeated the same bleak monosyllable.

The room had become so still that I could clearly distinguish his solemn words. "The sentence of the court is that you be taken from this place where you are now, and be conveyed to the jail at Pretoria, or any such other jail in this Republic as may be appointed by law, that you be kept there till a time and place of execution shall be appointed by lawful authority, and that you be taken to the place of execution to be there hanged by the neck till you are dead.

"May Almighty God have mercy on your soul."

